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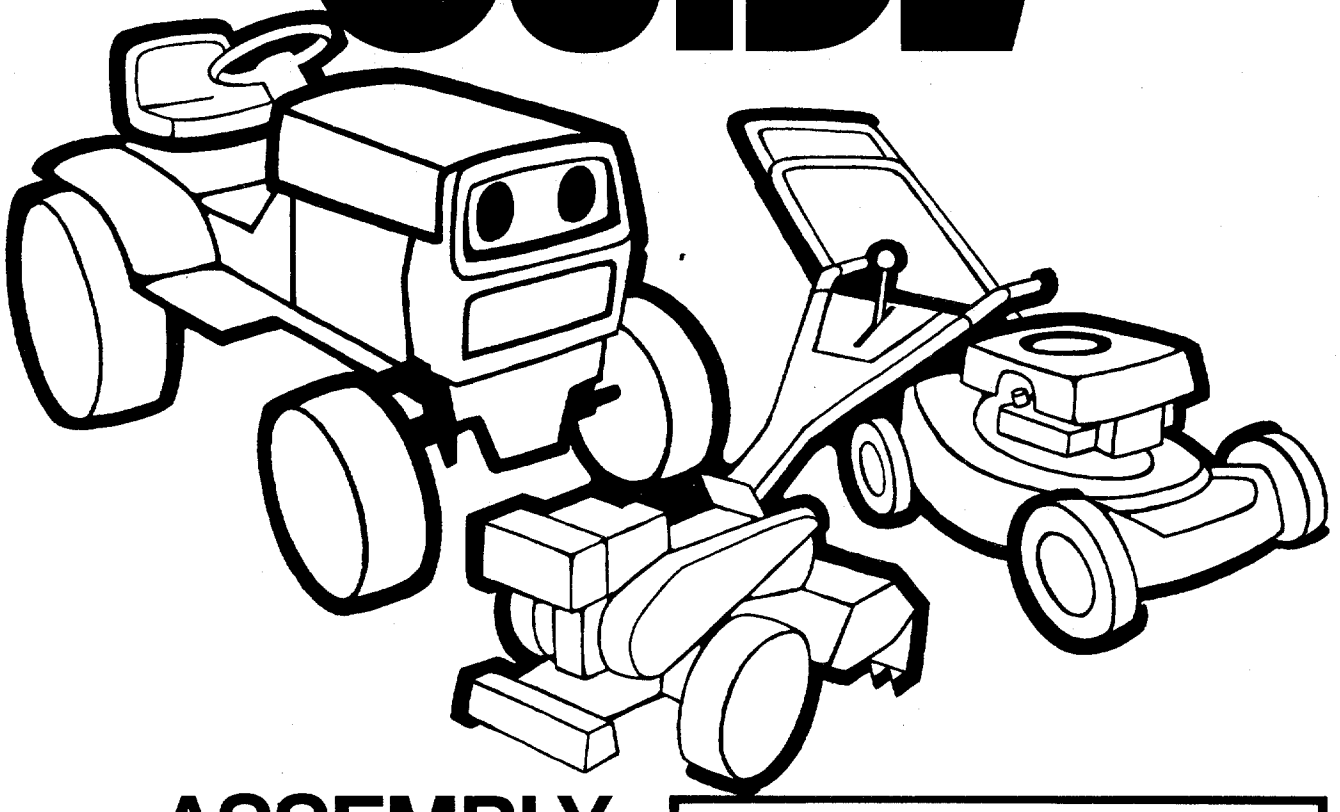
OWNER'S GUIDE



ASSEMBLY
OPERATION
MAINTENANCE
PARTS LIST

IMPORTANT:
Read Safety Rules and Instructions

MODEL NUMBER
140-990A
16 H.P.
HYDROSTATIC
GARDEN
TRACTOR

NOTE
OPTIONAL 50" DECK
MODEL 190-992A
AVAILABLE

PRINTED IN U.S.A.

FORM NO. 770-0253

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LIMITED WARRANTY

For one year from the date of original retail purchase, MTD PRODUCTS INC will either repair or replace, at its option, free of charge, F.O.B. factory or authorized service firm, any part or parts found to be defective in material or workmanship. Transportation charges for any parts submitted for replacement under this warranty must be paid by the purchaser unless such return is requested by MTD PRODUCTS INC.

This warranty will not apply to any part which has become inoperative due to misuse, excessive use, accident, neglect, improper maintenance, alterations, or unless the unit has been operated and maintained in accordance with the instructions furnished. This warranty does not apply to the engine, motor, battery, battery charger or component parts thereof. Please refer to the applicable manufacturer's warranty on these items.

This warranty will not apply where the unit has been used commercially.

Warranty service is available through your local authorized service dealer or distributor. If you do not know the dealer or distributor in your area, please write to the Customer Service Department of MTD.

The return of a complete unit will not be accepted by the factory unless prior written permission has been extended by MTD.

This warrany gives you specific legal rights. You may also have other rights which vary from state to state.

WARNING

TO PURCHASERS
OF INTERNAL COMBUSTION ENGINE EQUIPPED
MACHINERY OR DEVICES IN THE STATE OF CALIFORNIA

The equipment which you have just purchased does not have a spark arrester. If this equipment is used on any forest covered land, brush covered land, or grass covered unimproved land in the State of California, before using on such land, the California law requires that a spark arrester be provided. In addition, spark arrester is required by law to be in effective working order. The spark arrester must be attached to the exhaust system and comply with Section 4442 of the California Public Resources Code.

➡IMPORTANT

It is suggested that this manual be read in its entirety before attempting to assemble or operate. Keep this manual in a safe place for future reference and for ordering replacement parts.

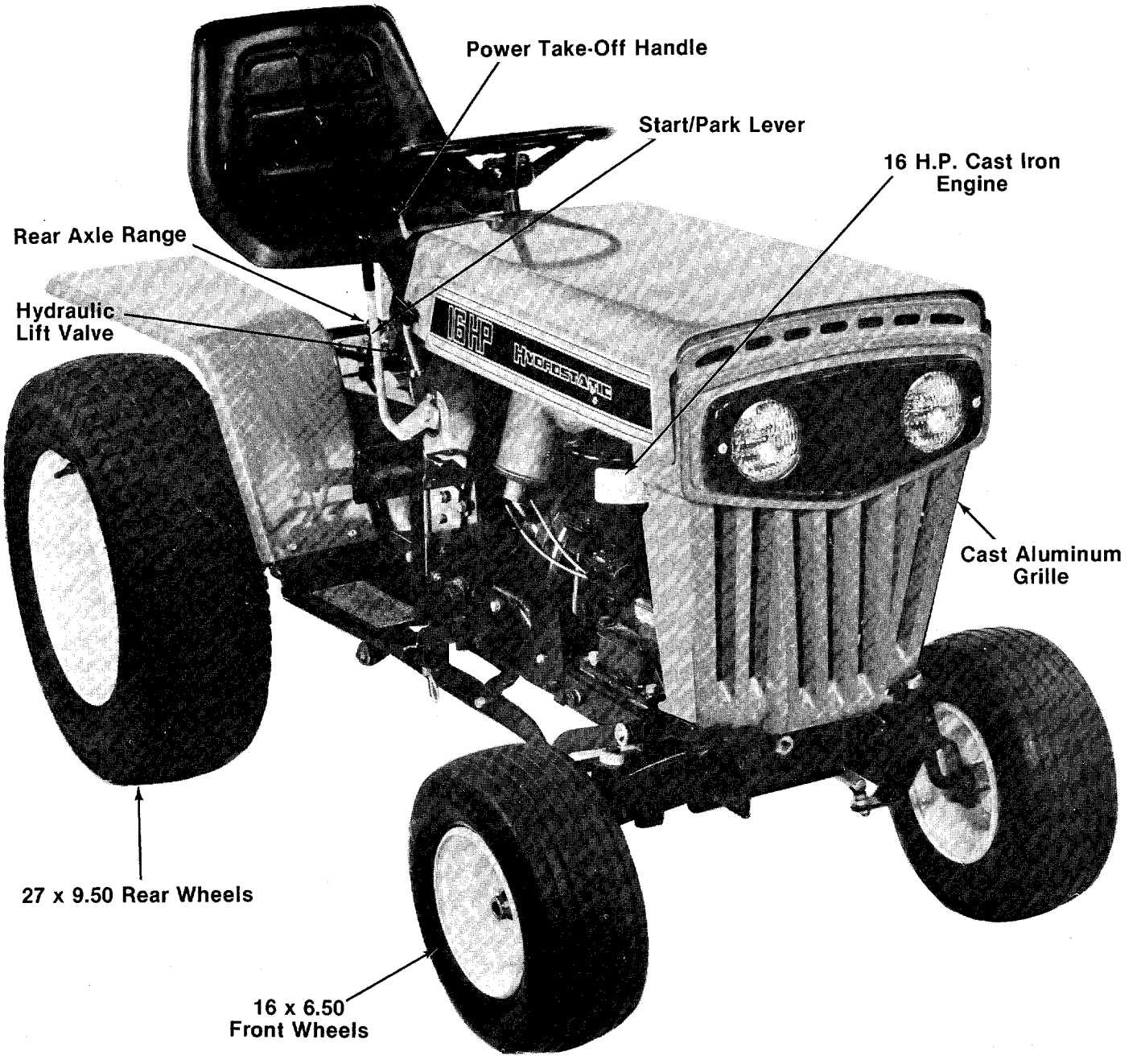
This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and amount.

This unit is a precision piece of power equipment, not a plaything. Therefore exercise extreme caution at all times.

SAFE OPERATION PRACTICES FOR RIDING VEHICLES

1. Know the controls and how to stop quickly—READ THE OWNER'S MANUAL.
2. Do not allow children to operate vehicle. Do not allow adults to operate it without proper instruction. Only persons well acquainted with these rules of safe operation should be allowed to use your mower.
3. Do not carry passengers
4. Keep the area of operation clear of all persons, particularly small children and pets. Stop engine when they are in the vicinity of your mower. Although the area of operation should be completely cleared of foreign objects, a small object may have been overlooked and could be accidently thrown by the mower in any direction.
5. Clear work area of objects which might be picked up and thrown by the mower in any direction.
6. Disengage all attachment clutches and shift into neutral before attempting to start engine.
7. Disengage power to attachment(s) and stop engine before leaving operating position.
8. Disengage power to attachment(s) and stop engine before making any repairs or adjustments. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
9. Before attempting to unclog the mower or discharge chute, stop the engine and be sure the blade(s) have stopped completely. Disconnect the spark plug wire and keep the wire away from the plug to prevent accidental starting.
10. Disengage power to attachment(s) when transporting or not in use.
11. Take all possible precautions when leaving vehicle unattended such as disengaging power-take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.
12. Do not stop or start suddenly when going uphill or downhill. Mow up and down face of steep slopes; never across the face.
13. Reduce speed on slopes and in sharp turns to prevent tipping or loss of control. Exercise extreme caution when changing direction on slopes.
14. Stay alert for holes in terrain and other hidden hazards.
15. Use care when pulling loads or using heavy equipment.
    A. Use only approved drawbar hitch points.
    B. Limit loads to those you can safely control.
    C. Do not turn sharply. Use care when backing.
    D. Use counterweight(s) or wheel weights when suggested in owner's manual.
16. Watch out for traffic when crossing or near roadways.
17. When using any attachments, never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.
18. Handle gasoline with care. It is highly flammable.
    A. Use approved gasoline container.
    B. Never remove cap or add gasoline to a running or hot engine or fill fuel tank indoors. Wipe up spilled gasoline.
    C. Open doors if engine is run in garage. Exhaust fumes are dangerous. Do not run engine indoors.
19. Keep the vehicle and attachments in good operating condition, and keep safety devices in place. Use guards as instructed in owner's manual.
20. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
21. Never store the equipment with gasoline in the tank inside a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.
22. To reduce fire hazard, keep engine free of grass, leaves or excessive grease.
23. The vehicle and attachments should be stopped and inspected for damage after striking a foreign object. The damage should be repaired before restarting and operating the equipment.
24. Do not change the engine governor settings or overspeed the engine.
25. When using the vehicle with mower, proceed as follows:
    (1) Mow only in daylight or in good artificial light.
    (2) Never make a cutting height adjustment while engine is running if operator must dismount to do so.
    (3) Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher.
    (4) Check blade mounting bolts for proper tightness at frequent intervals.
26. Check grass catcher bags frequently for wear or deterioration. For safety protection, replace only with new bag meeting original equipment specifications.
27. Look behind to make sure the area is clear before placing the transmission in reverse and backing up.

KNOW YOUR TRACTOR



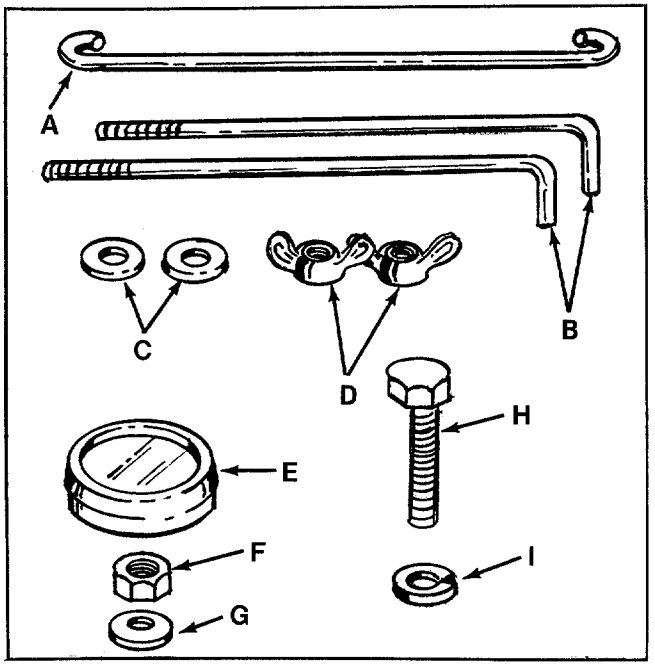


FIGURE 1.

ASSEMBLY

The Garden Tractor is packed and shipped in one container and is fully assembled except for the steering wheel, seat, battery and mounting the three point hitch.

NOTE

Reference to left or right side of machine is from the operator's position in the seat facing forward.

Contents of Hardware Pack (See figure 1.)

A (1) Battery Hold Down
B (2) Battery Hold Down Rods
C (2) Flat Washers
D (2) Wing Nuts
E (1) Steering Wheel Cap
F (1) Hex Lock Nut 5/16-18 Thread
G (1) Belleville (Curved) Washer
H (1) Hex Bolt ½-13 x 1.00" Long
I (1) Lock Washer ½" I.D.

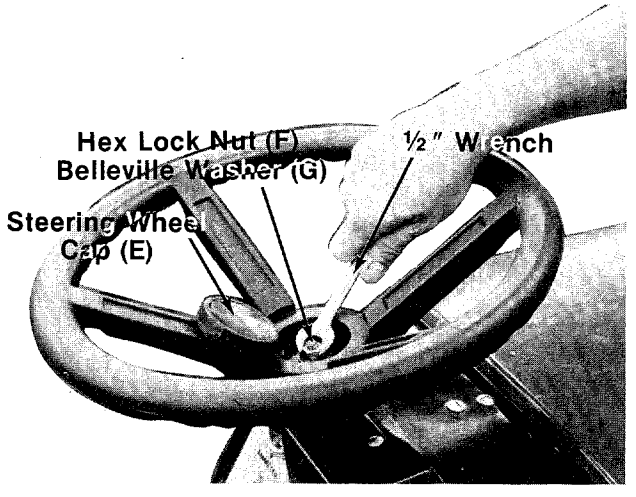


FIGURE 2.

ATTACHING STEERING WHEEL

1. Place the steering wheel over the steerng column extending through the dash. Line up the flats on the steering column with the flats in the steering wheel. (See figure 2.)
2. Place the belleville (curved) washer (G) with the cupped side down over the steering column and secure with hex lock nut (F).
3. Place the steering wheel cap (E) over the center of the steering wheel and seat it with your hand.

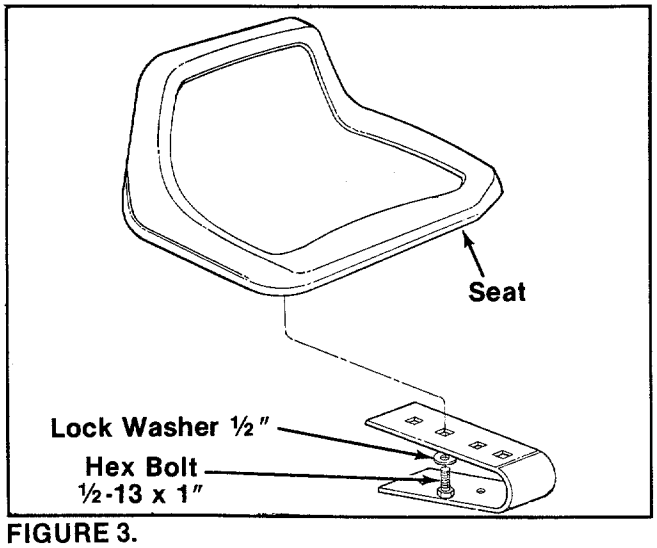


FIGURE 3.

ATTACHING THE SEAT

Select one of four seat positions on the tractor seat spring. Secure seat to seat spring with hex bolt (H) and lock washer (I). (See figure 3.)

BATTERY INFORMATION

WARNING

A. Battery acid must be handled with great care as it will blister the skin and damage clothing. It is advisable to wear goggles, rubber gloves, and a protective apron when working with it.

B. Neutralize acid spilled on clothing with dilute ammonia water or a water solution of baking soda. If acid gets on clothes, dilute it with clean water first, then neutralize.

C. If for any reason acid should be spattered in the eyes, wash it out immediately with clean cold water. Seek medical aid if discomfort continues.

D. Since battery acid is corrosive to metals, do not pour into any sink or drain. Rinse empty electrolyte containers and mutilate before discarding.

DANGER

BATTERIES CONTAIN SULFURIC ACID AND MAY CONTAIN EXPLOSIVE GASES (when electrolyte has been added)

A. Keep sparks, flame, cigarettes away.

B. Hydrogen gas is generated during charging and discharging.

C. Ventilate when charging or using in enclosed space.

D. When using a charger—to avoid sparks, NEVER connect or disconnect charger clips to battery while charger is turned on.

E. Always shield eyes, protect skin and clothing when working near batteries.

ACTIVATING THE BATTERY

NOTE

If your battery is activated (electrolyte in the battery) and installed in the tractor, go directly to step 9.

1. Place the battery to be filled on a workbench. Never activate a battery in the unit.
2. Remove the fill caps from all cells.
3. Fill each cell carefully using 1.265 specific gravity electrolyte. Fill each cell to the top of the separators. Do not overfill.
4. Let the battery sit for 20 minutes for the chemical reaction to take place.
5. Charge the battery at a MAXIMUM RATE OF 5 AMPS until the specific gravity reads 1.265. Use a hydrometer to check the specific gravity.

CAUTION

An excessive rate of charge will damage the battery.

6. Check the level of electrolyte. Adjust level to bottom of split ring if necessary with electrolyte.
7. Replace fill caps.
8. Once the battery has been activated never add anything except distilled water or a good grade of drinking water.
9. If your battery has been installed in your unit at the factory:
   A. Use a hydrometer to check the specific gravity. The specific gravity should be 1.265 at 80° F.
   B. If it is less, remove the fill caps and use a battery charger to bring the specific gravity up to 1.265. NEVER CHARGE AT MORE THAN 5 AMPS.
   C. Replace the fill caps.
   D. The positive cable has been attached to the positive terminal of the battery at the factory. You only have to attach the negative cable (grounded) to the negative (Neg, N or −) terminal of the battery with a hex head bolt, lock washer and nut.

INSTALLING THE BATTERY

NOTE

The positive battery terminal is marked Pos. (+). The negative battery terminal is marked Neg. (−).

1. Place the battery in the battery case with the Negative (−) terminal to the front.

NOTE

Do not push the battery back all the way.

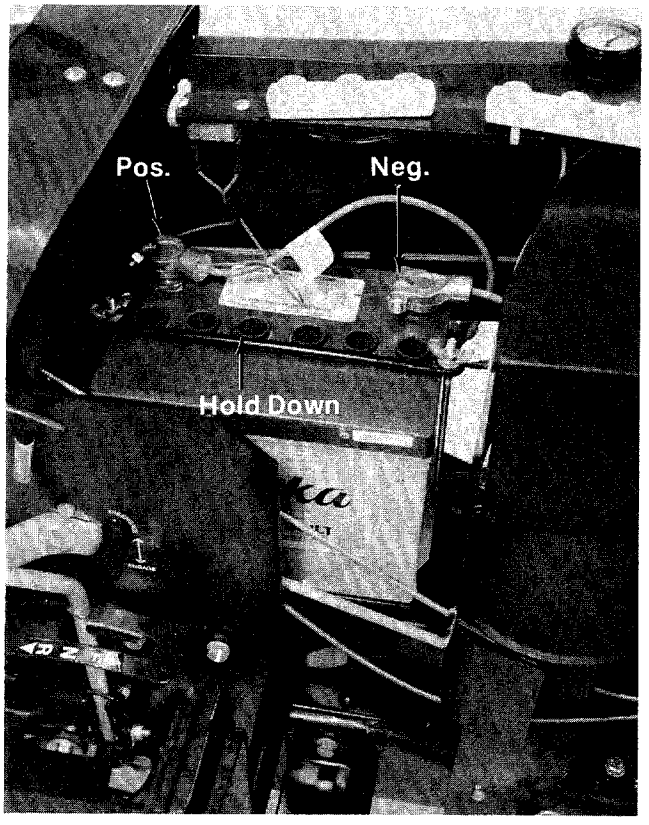


FIGURE 4.

2. Attach the positive battery cable (which has two wires) to the positive battery terminal. (See figure 4.)
3. Attach the negative battery cable (grounded, single wire) to the negative battery terminal.

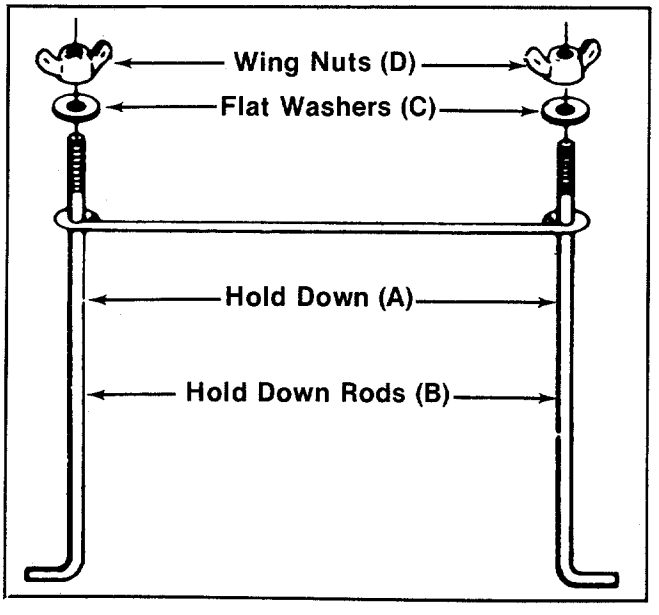


FIGURE 5.

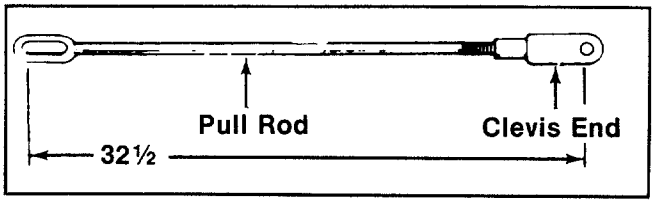


FIGURE 6.

4. Assemble the hold down rods (B) and hold down (A) before you place it over the battery (see figure 5) using wing nuts (D) and flat washers (C).
5. Place the battery hold down assembly over the battery and slide the battery into place. (See figure 4.)

WARNING

Place the hold down on the side opposite the terminals.

6. Hook the hold down rods into the battery case and tighten finger tight. (Do not overtighten.)

ASSEMBLING THE THREE POINT HITCH

NOTE

Use the three point hitch only for the rear attachments such as the moldboard plow, disc and cultivator. If you are using the mowing deck, snow blade or snow thrower it is not necessary to attach the three point hitch.

1. Adjust the clevis ends on both pull rods so that they measure 32½ inches. (See figure 6.)

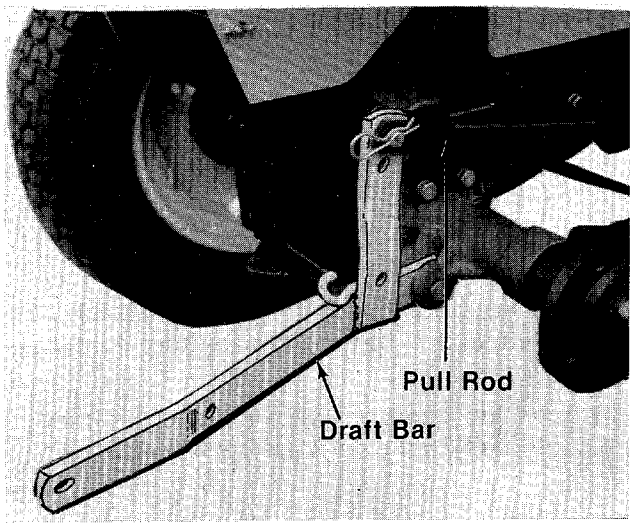


FIGURE 7.

2. Assemble each draft bar to the axle brackets using the longest clevis pins, two large washers, and secure with a cotter hairpin. (See figures 7 and 8.)

NOTE

Refer to figure 9 to determine which is the right and left draft bars.

3. Attach the flat end of the pull rod to the top hole in the draft bar with the shorter clevis pin, flat washer cotter hairpin. (See figure 7.)
4. Assemble the draw bar to the draft bars and secure each end with a cotter hairpin. (See figure 9.)
5. Screw one hex nut all the way on to each of hook bolts.

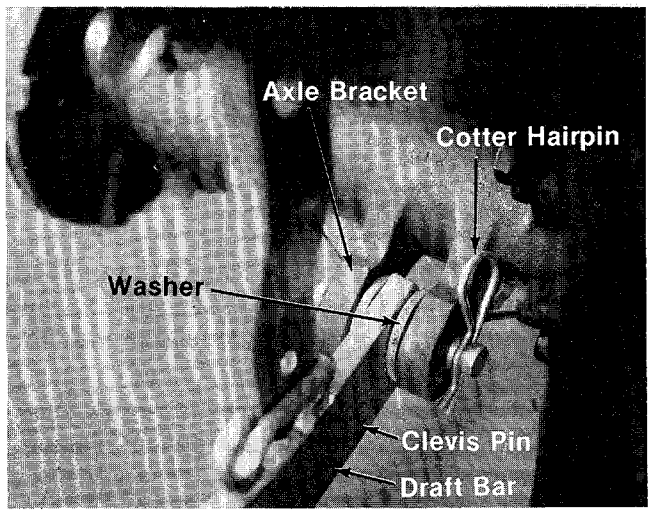


FIGURE 8.

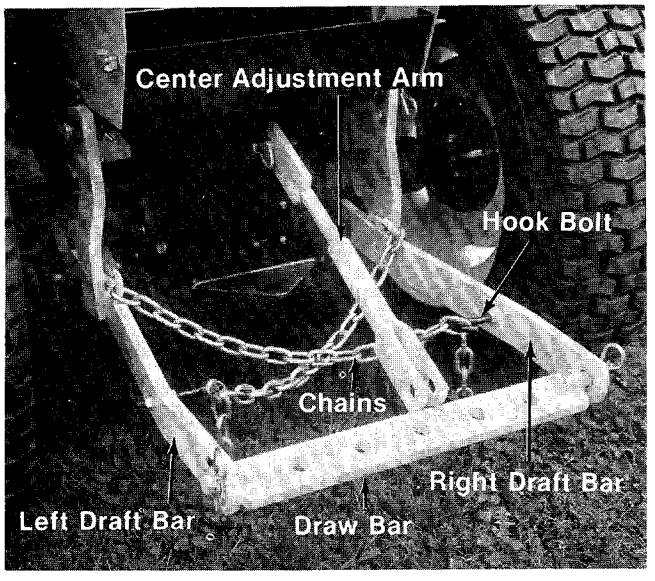


FIGURE 9.

6. Place a lock washer next to the hex nut and insert the hook bolt through the inside of the draft bar. Secure using a second nut. Do not tighten. (See figure 9.)
7. Fasten the chains to the hooks welded on the draft bars. Cross the chains over and attach to the opposite hook bolts.

NOTE

Pull the chains to make them as tight as possible.

8. Tighten the outside nuts on the hook bolts until there is approximately one inch of play in the center of the chains.
9. Tighten the inside nuts on the hook bolts.

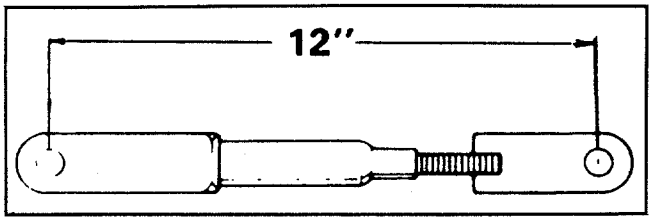


FIGURE 10.

10. Assemble and adjust the two halves of the center adjustment arm until it is 12 inches long. (See figure 10.)
11. Assemble the flat end of the center adjustment arm to the upper hole in the center hitch bracket with a clevis pin, two flat washers and a cotter hairpin. (See figure 9.)

TIRE PRESSURE

Reduce the rear wheel tire pressure to 15 p.s.i. for operation. The tires have been over-inflated for shipping. Equal tire pressure should be maintained on all tires. Maximum tire pressure is 30 p.s.i.

HYDROSTATIC TRANSMISSION

See the maintenance section of this manual for correct lubrication and level for the oil in the hydrostatic transmission.

OPERATION

CAUTION

1. KEEP ALL SHIELDS & GUARDS IN PLACE
2. BEFORE LEAVING OPERATOR'S POSITION:
   - SHIFT CONTROLS INTO NEUTRAL
   - SET PARKING BRAKE
   - DISENGAGE ATTACHMENT DRIVE
   - SHUT ENGINE OFF
   - REMOVE IGNITION KEY
3. WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING MACHINE
4. KEEP PEOPLE & PETS A SAFE DISTANCE AWAY FROM MACHINE

Your garden tractor is equipped with a chute deflector and internal baffle on the (optional) cutting deck. The tractor must not be operated without these pieces in their proper place.

CAUTION

DO NOT OPERATE MOWER UNLESS GUARD IS IN ITS PROPER PLACE.

Before starting the engine fill the crankcase with oil. Refer to the Engine Operation and Maintenance manual.

Throttle Control

The throttle control is located on the right side of the dashboard and is used to regulate the engine speed. (See figure 11.) The engine should be operated from 3/4 to full throttle "FAST" when operating any equipment that uses the tractor engine as a source of power such as the cutting deck, snow thrower or rotary tiller.

Choke Control (See figure 11.)

Pull the choke knob all the way out. Set throttle in the "FAST" position. A warm engine requires less choking.

Ignition Switch (See figure 11.)

The ignition switch is located on the left side of the dashboard. Turn the key to the "START" position to start the engine. When the engine is running leave the key in the "ON" position. To stop the engine turn the key to the "OFF" position.

WARNING

Remove the key from the tractor when the tractor is not in use to prevent accidental starting.

Light Switch (See figure 11.)

The head lamps are operated by a toggle light switch located on the dashboard. The head lamps will only operate when the engine is running. Flip the toggle switch **up** to turn on lights and **down** for off.

Ammeter (See figure 11.)

The ammeter registers the rate of battery charge or discharge. The ammeter should register on the plus (+) side when the engine is running in the "FAST" position until the battery is completely charged.

With a fully charged battery or with the engine idling, the ammeter may not show a charge.

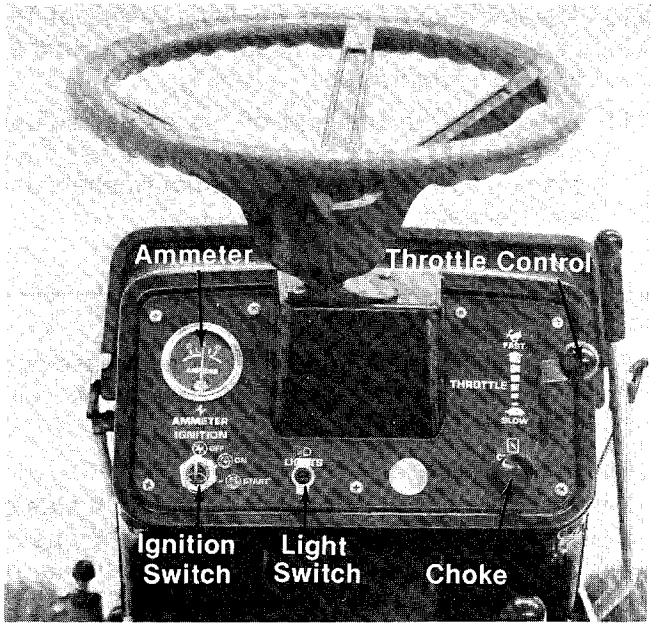


FIGURE 11.

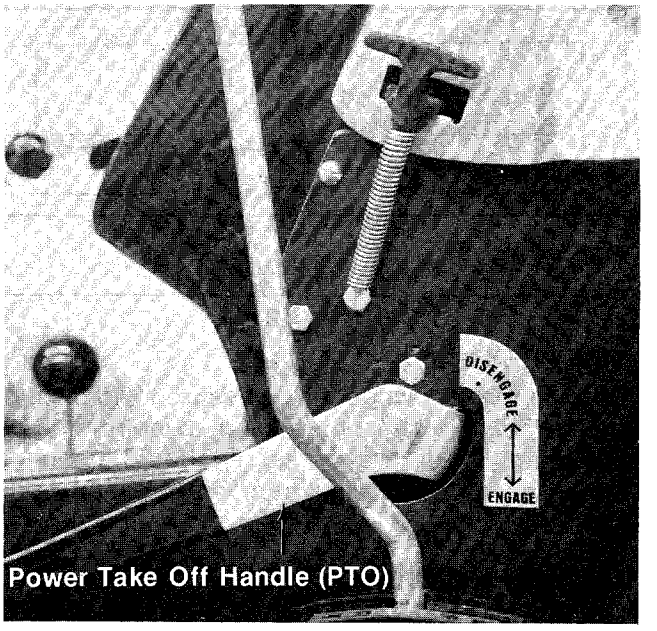


FIGURE 13.

Power Take Off Operation (PTO)

There are two PTO's on your tractor. The front PTO is a pulley located behind the grille and is used to operate the snow thrower. This PTO is directly connected to the engine and operates whenever the engine is running.

The rear PTO is located under the tractor and is used to operate the grass cutting deck and rotary tiller. (See figure 12.)

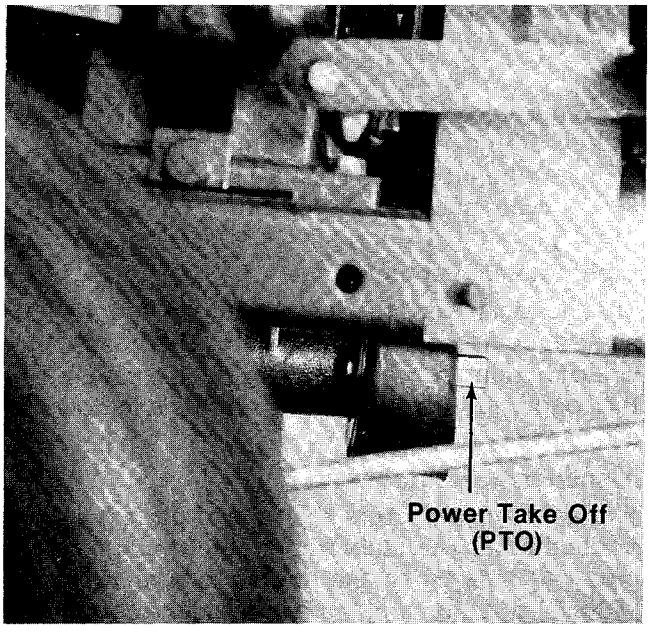


FIGURE 12.

The rear PTO is operated by the PTO lever. (See figure 13.)

NOTE

The PTO lever must be in the DISENGAGED position to start the engine.

High/Low Axle Range

Your tractor is equipped with a two speed rear axle for greater versatility. (See figure 14.) The LOW range is used when operating the rotary tiller, moldboard plow and should also be used when extra power is required.

HIGH range operation is for normal loads, grass cutting and normal use.

LOW Range (0-4 mph)
HIGH Range (0-8 mph)

The Axle Range Lever must be in either the HIGH or LOW range position. The tractor will not move if it is in the center position.

NOTE

When pushing the tractor by hand with the engine shut off, place the Axle Range Lever between the HIGH and LOW position. The hydrostatic pump will not rotate and the tractor will be easier to push.

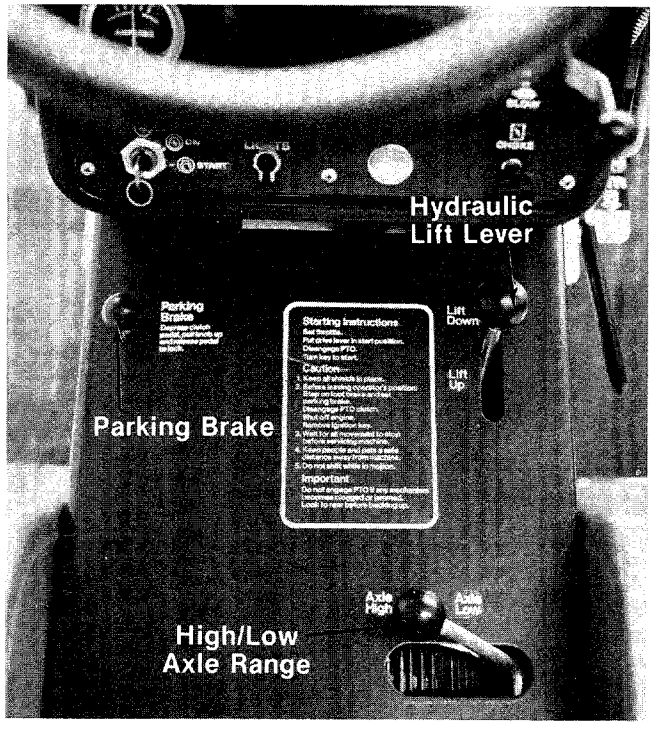


FIGURE 14.

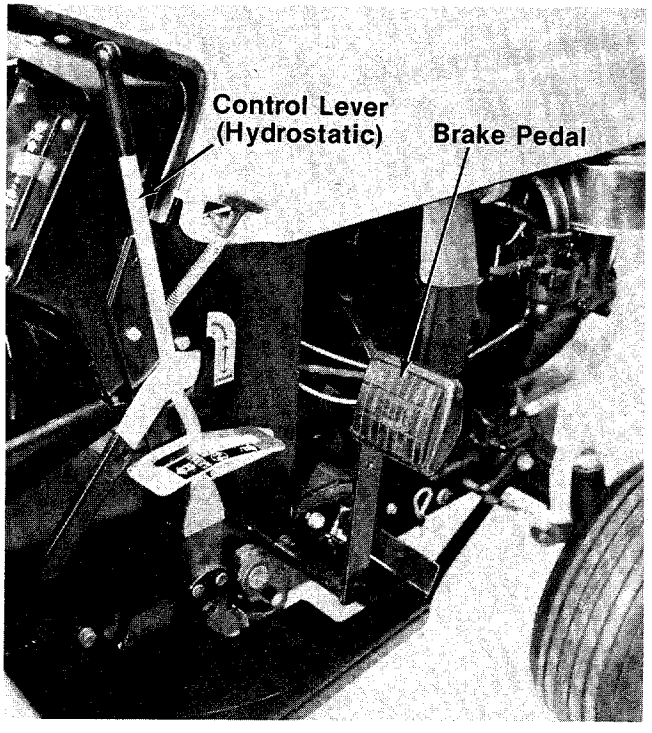


FIGURE 15.

Hydraulic Lift Lever

The hydraulic lift lever is used to raise or lower all of the tractor attachments. Move the lever forward to raise the attachment and move the lever backwards to lower the attachment. (See figure 14.)

Brake Pedal

The brake pedal is located on the right side of the tractor. Depressing the brake pedal operates the brake. It is used for emergency stopping only. When you depress the brake pedal the control lever will return close to the neutral position. The control lever is used for normal stopping. (See figure 15.)

Parking Brake

To set the parking brake, depress the brake pedal, pull up the parking brake knob and release the brake pedal. It will stay in the raised position. To release the parking brake, depress and release the brake pedal. (See figures 14 and 15.)

Control Lever (Hydrostatic)

The control lever is used to regulate the ground speed of the tractor. Moving the control lever to its extreme position makes the tractor travel faster. Moving the control lever forward (F) moves the tractor forward, moving the control lever backwards (R) reverses the tractor. The control lever is used to regulate the ground speed of the tractor. (See figure 15.)

To increase rear wheel torque (pulling power) move the control lever towards the neutral position. The tractor responds similar to shifting to a lower gear with a gear type transmission.

The control lever is used for normal slowing down and stopping by moving the control lever towards neutral (N). It is especially useful when rotary tilling hard or rough ground. Additional braking may be obtained by moving the control lever gradually in the opposite direction of your travel.

Deck Adjuster

The deck adjuster is located on the left side of the tractor and is used in conjunction with the mowing deck wheels to set the cutting height of the mowing deck. To operate the deck adjuster, depress the thumb button and move the deck adjuster forward to lower the cutting height and move it towards the rear to raise the cutting height.

The deck adjuster and the wheels on the mowing deck must be adjusted so the deck is parallel to the ground. (See figure 16.)

The deck is designed to raise and float over ground irregularities to prevent scalping.

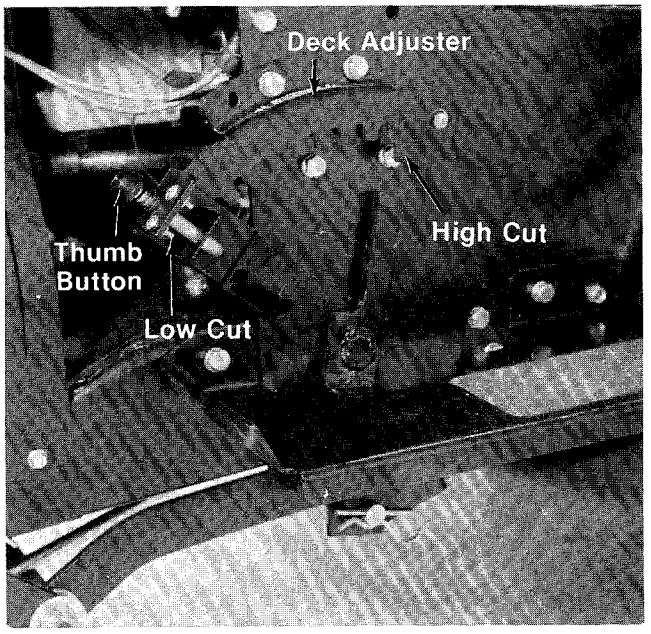


FIGURE 16.

Carriage Locks

The carriage locks hold the quick disconnect frame in the raised position when the rear attachments are used.

Remove the carriage locks, raise the quick disconnect frame by hand and reassemble the carriage locks to the inside so they hold the quick disonnect frame up. (See figure 17.)

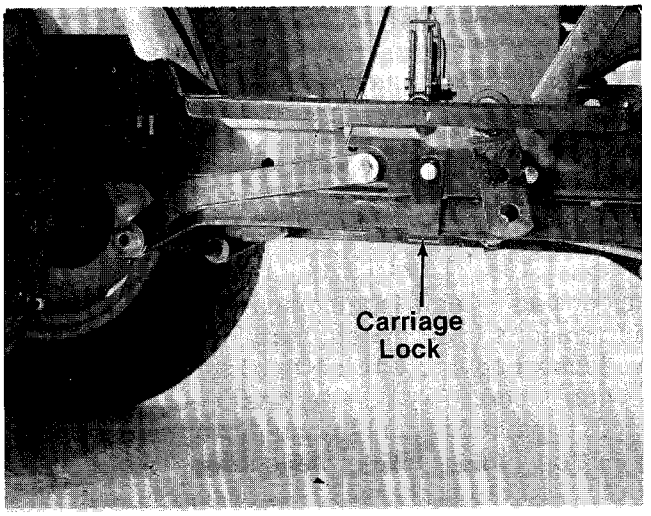


FIGURE 17.

Seat Adjustment

The seat is adjustable to four positions. Remove the bolt holding the seat to the spring to change positions. (See figure 18.)

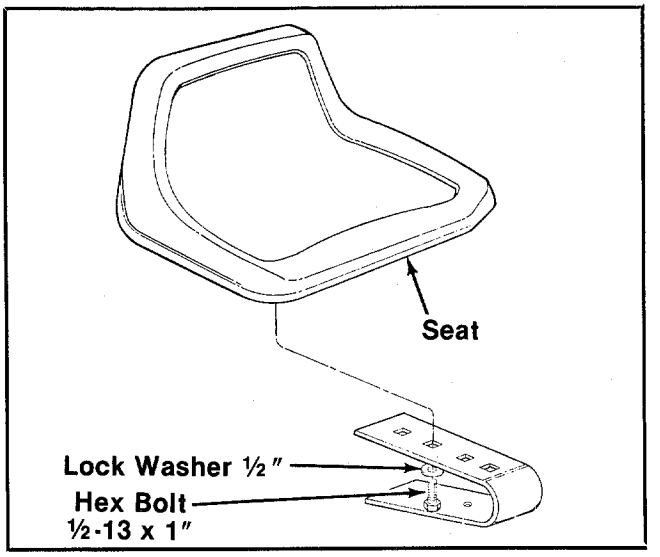


FIGURE 18.

Rear Wheel Width

The rear wheels can be reversed to increase or decrease the width. To reverse the wheels, raise the back of the tractor and block it well. Remove the four lug bolts holding the rim to the rear axle hub. Reverse the wheel and reassemble. (See figure 19.)

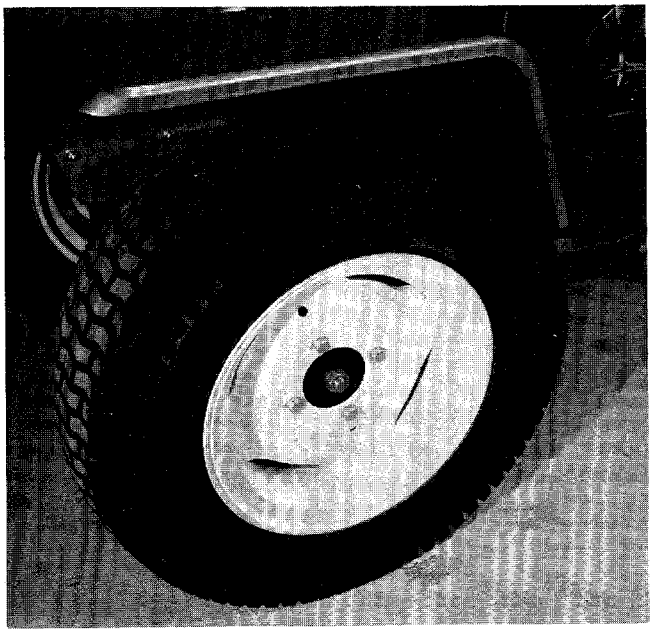


FIGURE 19.

Operating the Tractor

1. Start the engine as outlined in the Engine Operating and Maintenance manual.

2. The engine should be run with the throttle control in the "FAST" position to obtain the maximum efficiency. The sound you may hear when you accelerate is the normal operating sound of the hydrostatic transmission. The faster you push the control lever forward or backward, the louder the sound.
3. Release the brake and move the control lever into either the forward (F) or reverse (R) position.
4. The brake pedal is used for emergency stopping only. Normal stopping is done by using the control lever. When the brake pedal is depressed the control lever will return close to the neutral position so the tractor brake will stop the tractor, however, the tractor may creep either forward or backward when the brake pedal is released.

Maintenance and adjustments for the engine are covered in the Engine Operating and Maintenance Instructions manual.

MAINTENANCE

Lubrication

Item numbers 1 through 4 must be lubricated once a year with multi-purpose automotive grease.

1. **Steering Gear**—(See figure 20.)
2. **King Pin**—(See figure 21.)
3. **Pivot Bolt**—(See figure 21.)
4. **Deck Linkage**—Oil with SAE 30 oil on all pivot points once a season. (See figure 22.)

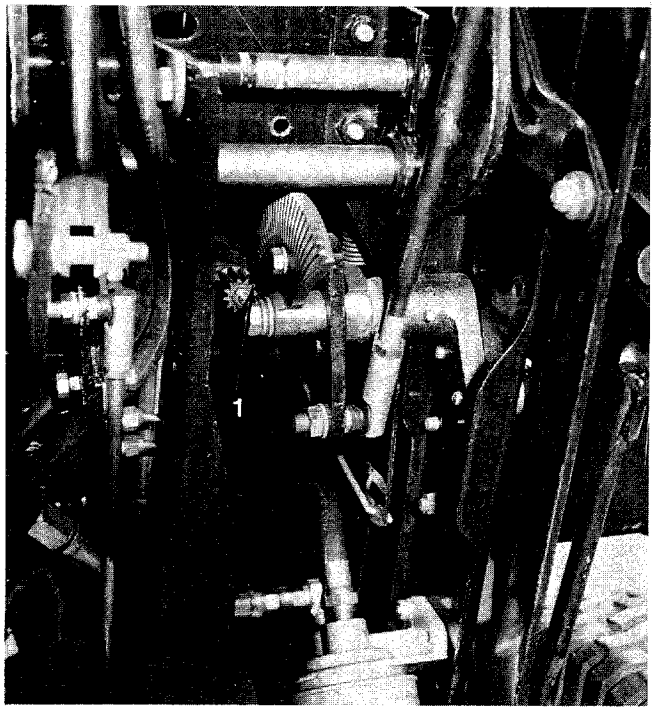


FIGURE 20.

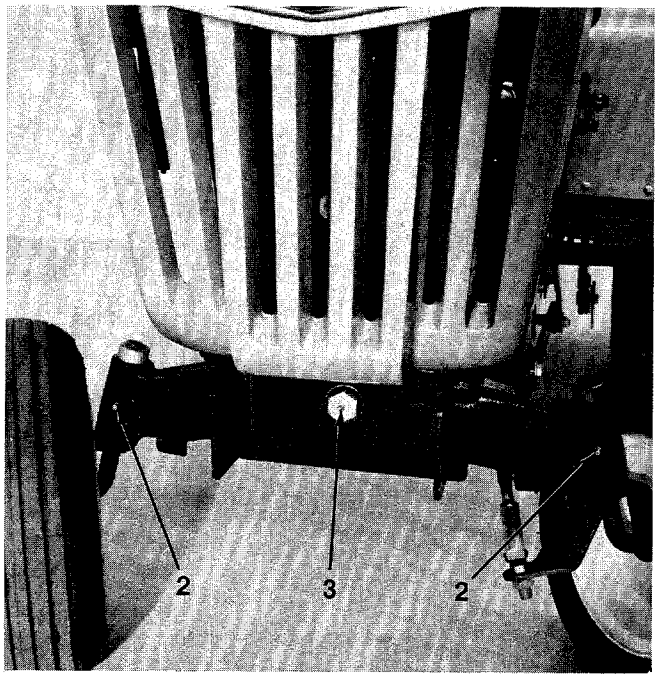


FIGURE 21.

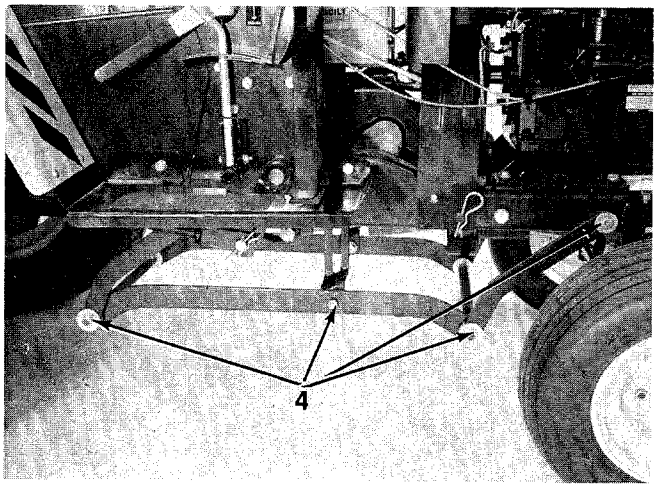


FIGURE 22.

5. **Hydrostatic Transmission**

   (See figure 23.) The dipstick for the hydrostatic transmission is located behind the seat. This dipstick checks the oil level in the hydrostatic transmission, transaxle and hydraulic lift system.

   The oil level should be maintained to the FULL mark on the dipstick. Check the oil level every 8 hours of operation.

   Use 20 weight oil with a zinc additive package of .07% minimum. The following list of oils meet these specifications:

Rykon Industrial Oil #31
Amoco 300, 20 wt.
Rotella, 20 wt.
Rimula Series 3, 20 wt.
X100 Motor Oil, 20 wt.
Havoline Motor Oil, 20 wt.
Ursa, Extra Heavy, 20 wt.

NOTE

If the above oils cannot be obtained, SAE 20 motor oil with a SE rating may be substituted.

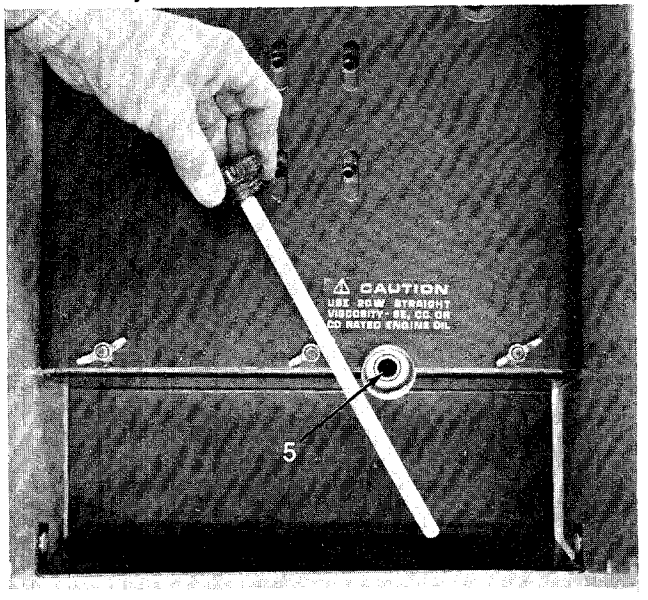


FIGURE 23.

The capacity of the unit is 5 quarts. However, because the oil will not completely drain from the lift system and hydrostatic transmission, you will only drain approximately 3 quarts. To drain, remove the plug from the bottom of the transaxle. (See figure 24.)

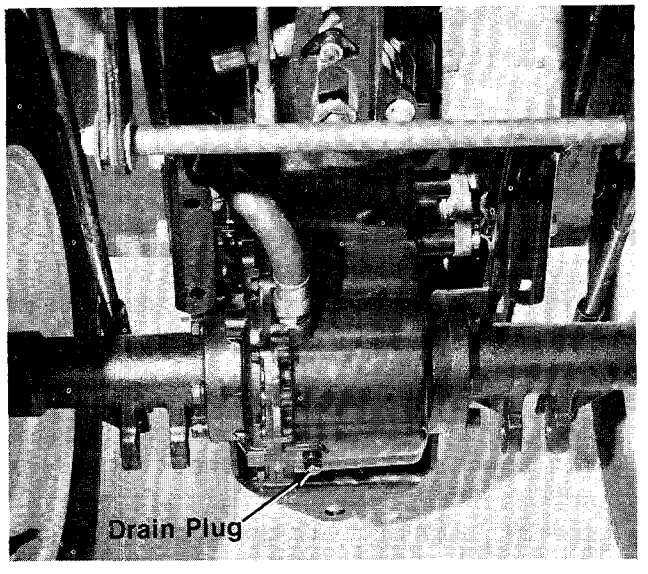


FIGURE 24.

6. **Oil Filter**

(See figure 25.) A full flow replaceable oil filter, located under the left side of the frame, should be replaced initially after twenty hours of operation and thereafter every 100 hours for commercial or industrial applications and yearly for normal usage. It can be removed by turning it counterclockwise by hand. Use Fram filter PH-16 or equivalent.

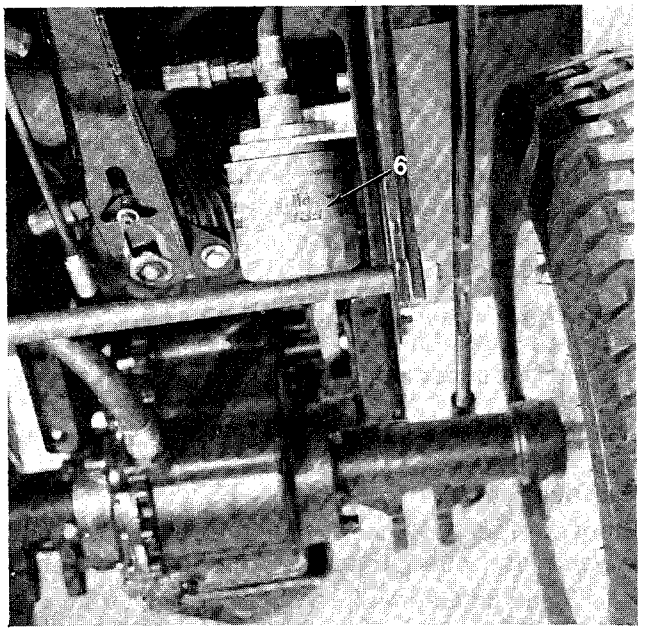


FIGURE 25.

7. **Hydrostatic Control**—Lubricate between the control slide and the control adjustment plate. (See figure 35.)

Disc Brake Adjustment

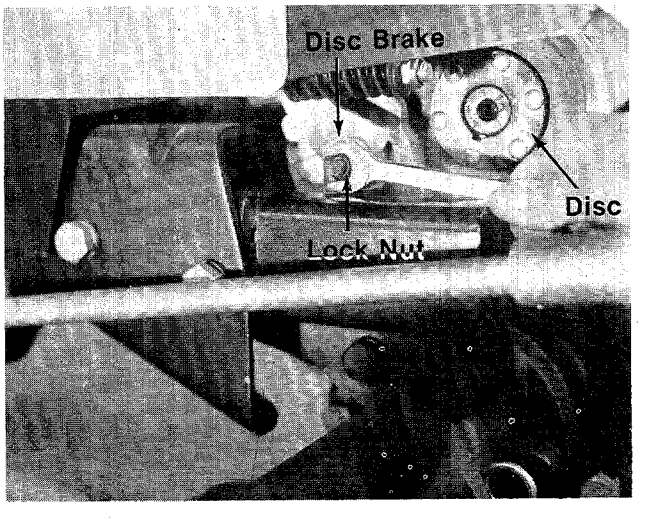


FIGURE 26.

The disc brake is located on the left side of the transaxle. To adjust, tighten the lock nut. (See figure 26.) (Wheel is removed for clarity.) The lock nut should be tightened just enough to stop the tractor when the brake pedal is depressed, allowing the disc to turn freely between the brake pads when the pedal is relased.

PTO Belt Removal

1. Place the PTO Lever in the disengaged position.

2. Remove the lower belt guard. (See figure 27.)

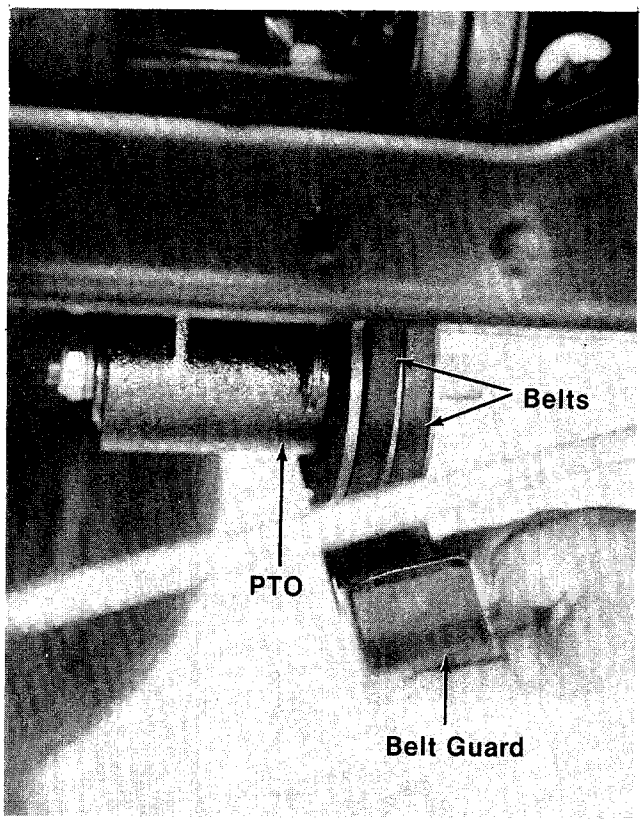


FIGURE 27.

3. Loosen the set screw in the universal joint. (See figure 28.)

4. Drive out the roll pin in the universal joint. (See figure 28.)

5. Slide the universal joint towards the rear of the tractor.

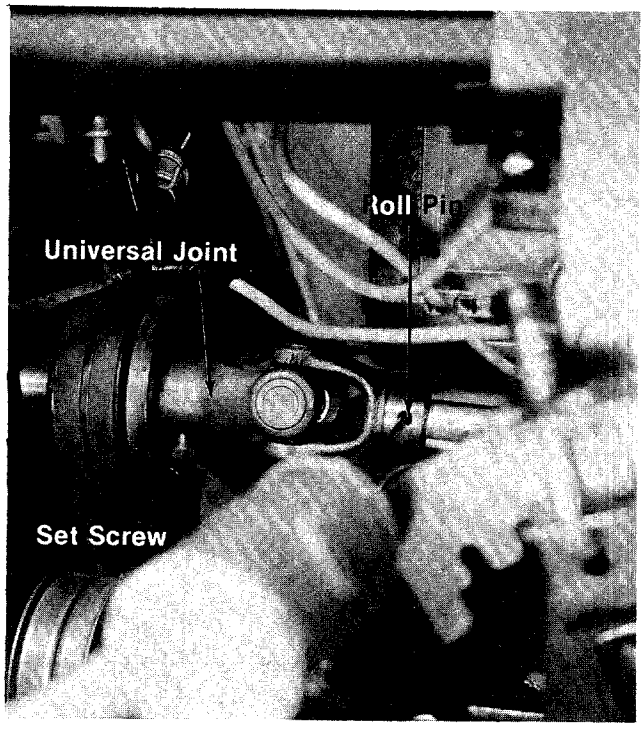


FIGURE 28.

6. Remove the PTO belts. (See figure 29.)
7. Reassemble in reverse order using matched belts.

NOTE

PTO belts must be replaced using matched sets.

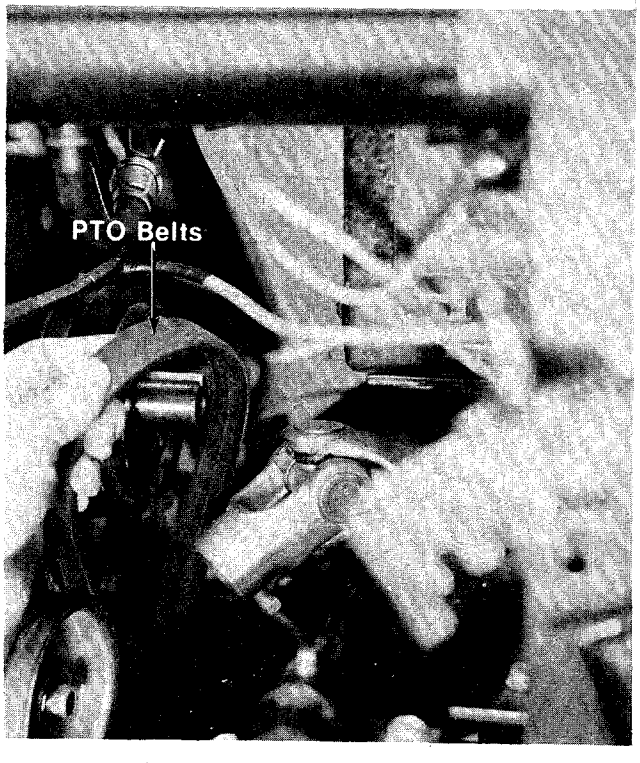


FIGURE 29.

Wheel Alignment

The front wheels should toe-in approximately 1/8". Measure the distances A and B on the front wheels. (See figure 30.)

NOTE

Dimension B should be approximately 1/8 inch less than dimension A.

To adjust the toe-in, loosen the hex jam nut, remove the elastic lock nut, lift the tie rod end out of the hole in the steering arm and screw the tie rod end in or out as necessary . (See figure 31.)

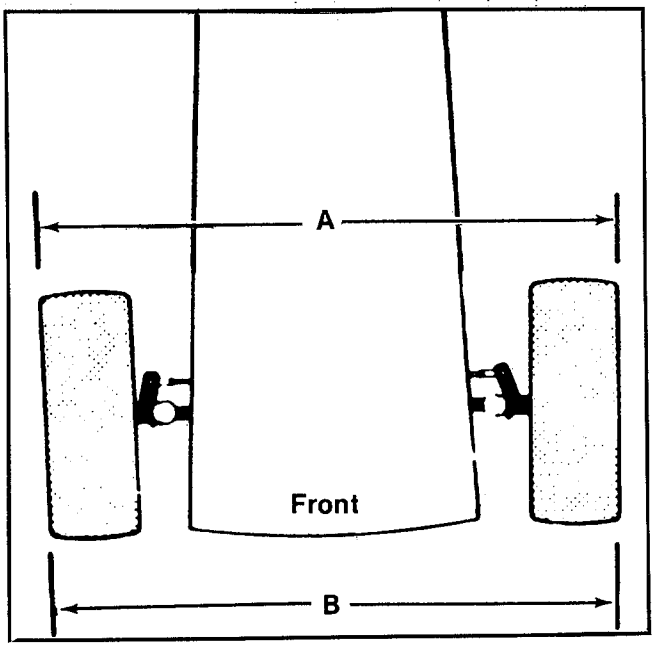


FIGURE 30.

Reassemble the tie rod end after the correct alignment is made.

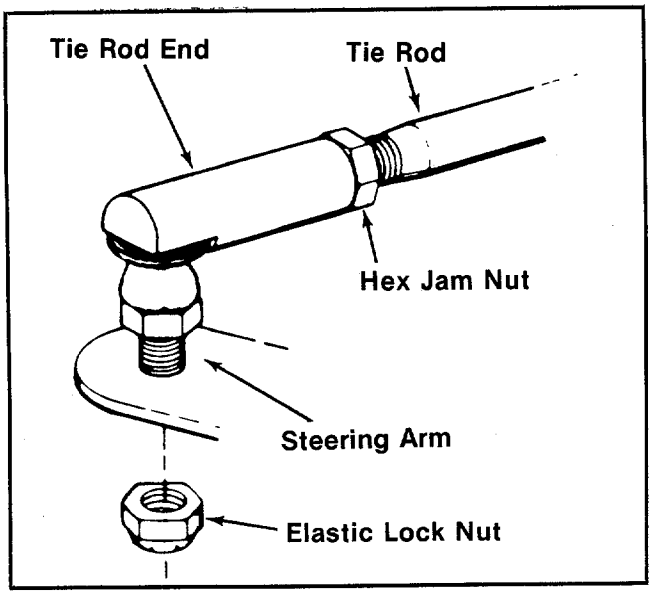


FIGURE 31.

Control Lever Adjustment

The hydrostatic control lever should be adjusted so that the tractor does not creep forward or backward when the control lever is in the neutral (N) position. When the brake pedal is depressed, the control lever should return to the neutral area or close enough so that the brake prevents tractor motion. If this does not occur, adjust the control lever as follows.

NOTE

This adjustment is made with the engine off.

1. Depress the brake and pull the Start/Park Lever into the Start/Park position.
2. Loosen the four jam nuts so the lever can be moved without moving the control rod. (See figure 32.)
3. Move the control lever to the neutral (N) position. (See figure 33.)
4. Retighten the jam nuts on each side of the ferrule without moving the control lever.
5. Start the engine and test the unit.

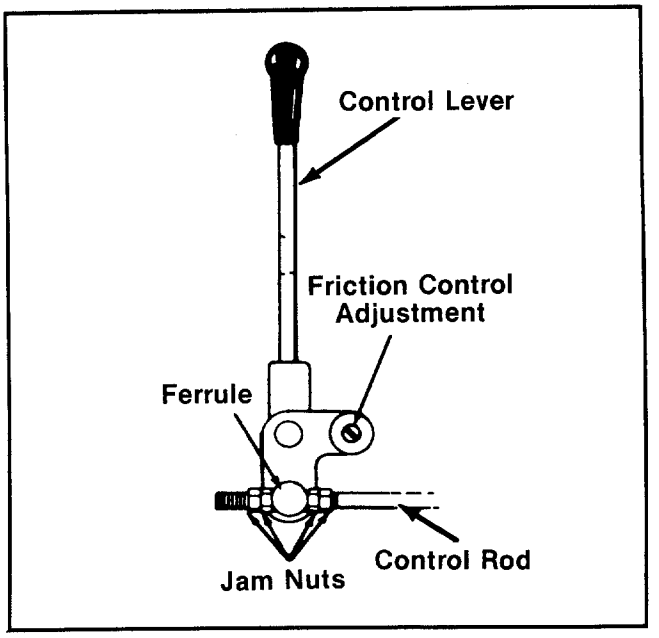


FIGURE 32.

6. If the tractor stops and does not creep, but the lever is still slightly off the neutral position the control index bracket may be loosened and centered to the lever.
7. This procedure may be repeated until the proper adjustment is obtained.

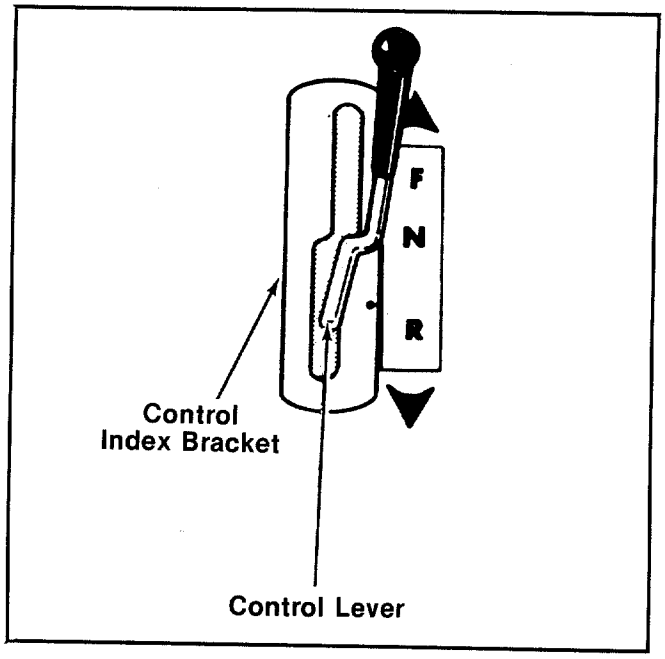


FIGURE 33.

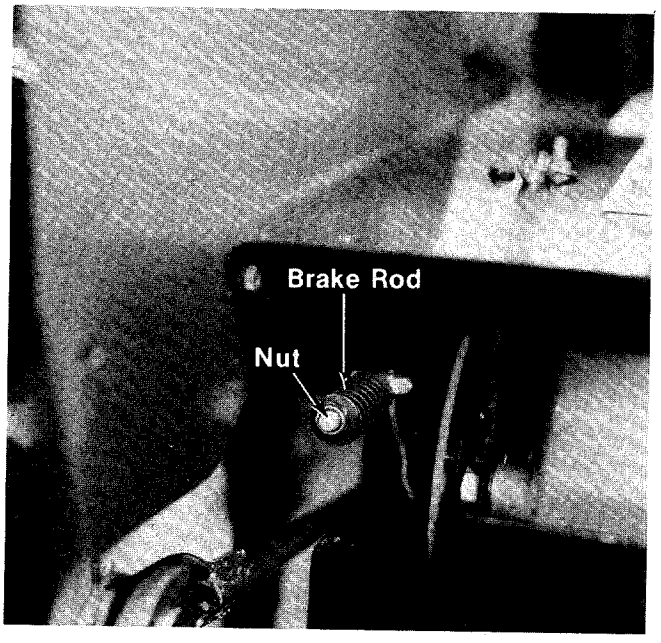


FIGURE 34.

Friction Control Adjustment

The harder the tractor pulls, the greater the tendency for the control lever to return to neutral. For example, the adjustment would need to be much tighter when using the moldboard plow than when using the mowing deck.

Adjustment can be made for the different attachments by loosening the lock nut and adjusting the screw as shown in figure 32. Turn the screw in (clockwise) to increase friction. The friction control must be free of grease and oil.

Hydrostatic Linkage Adjustment

1. Put the control lever in the neutral position.
2. Place the Start/Park Lever in the Start/Park position.
3. Put the axle range lever in the center (neutral) position.
4. Jack up the rear of the tractor so that the wheels are off the floor. Block the front wheels securely.
5. Loosen the nut on the end of the brake rod until the brake is loose. You should be able to rotate the rear wheels freely. (See figure 34.)
6. Position the axle range lever in the "LOW" position.
7. Loosen the bolt and nut on the control adjustment plate enough to allow the tear drop control lever and the control adjustment plate to move independently of each other. (See figure 35.)
8. Start the engine and run it at half throttle.

WARNING

Use extreme caution from this point on due to the cooling fan revolving on the hydrostatic pump.

9. Rotate the tear drop control lever on the pintle shaft in both directions and determine the true neutral (the point which the rear wheels stop).

NOTE

Some new hydrostatic units may turn very slowly, but if the wheels can be stopped by hand the adjustment is correct.

10. In this position, with care not to move the control lever, tighten the bolt and nut on the control adjustment plate.
11. Stop the engine. Position the axle range lever in neutral.
12. Tighten the nut on the end of the brake rod until the brake holds and the rear wheels cannot be rotated.
13. Lower the tractor to the floor.
14. Start the engine and road test it.

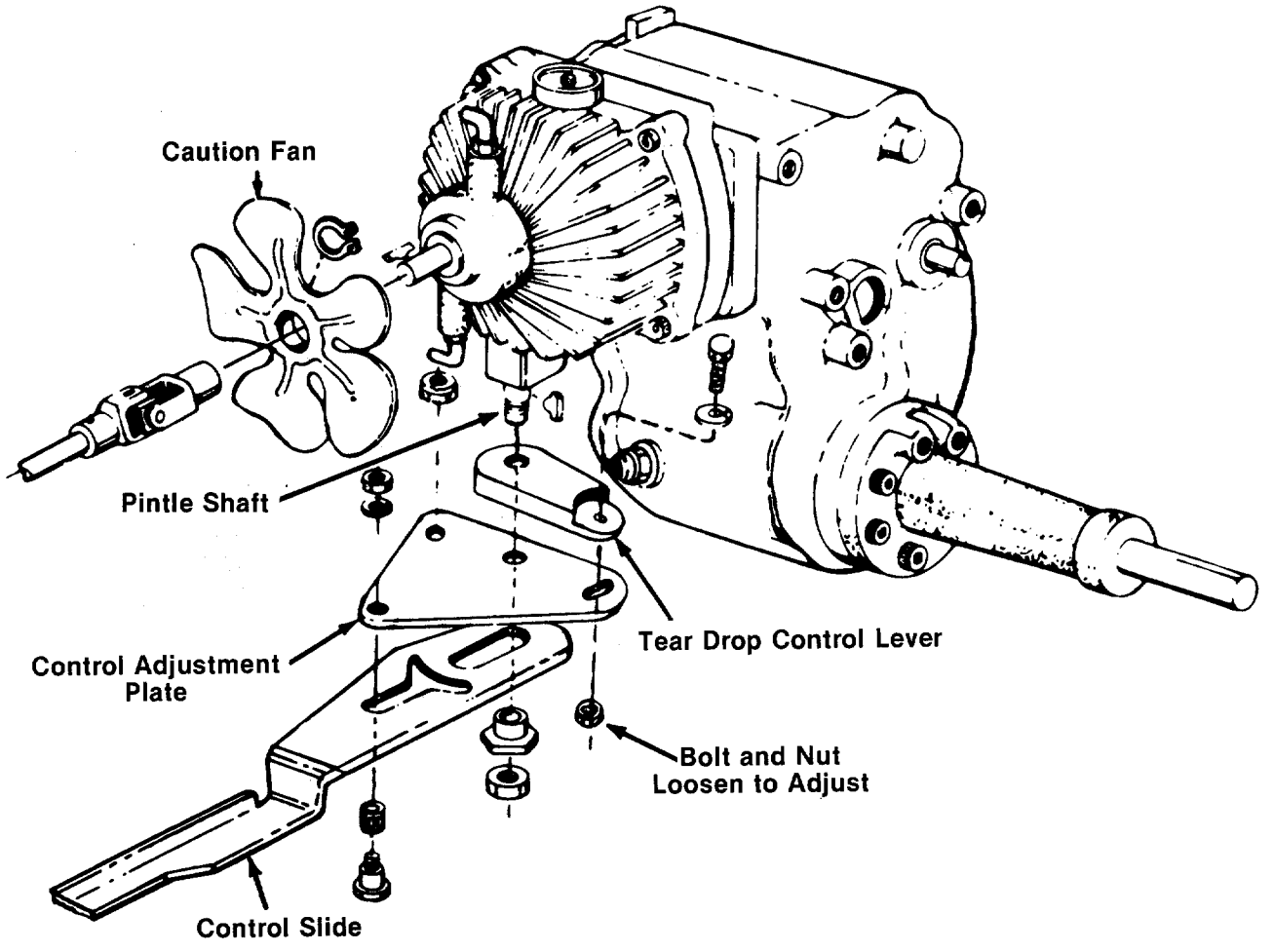


FIGURE 35.

Hydraulic Lift Valve Adjustment

The valve is located under the right side of the tractor frame directly under the hydraulic lift lever. (See figure 14.)

The hydraulic lift valve is adjustable. Before making adjustments to the valve be sure the engine is running at maximum speed. If the hydraulic lift will not raise your attachments, especially the heavier ones, you must increase the pressure.

The equipment being used should be attached to the tractor during the adjustment.

1. Remove the acorn nut and washer. (See figures 36 and 37.)

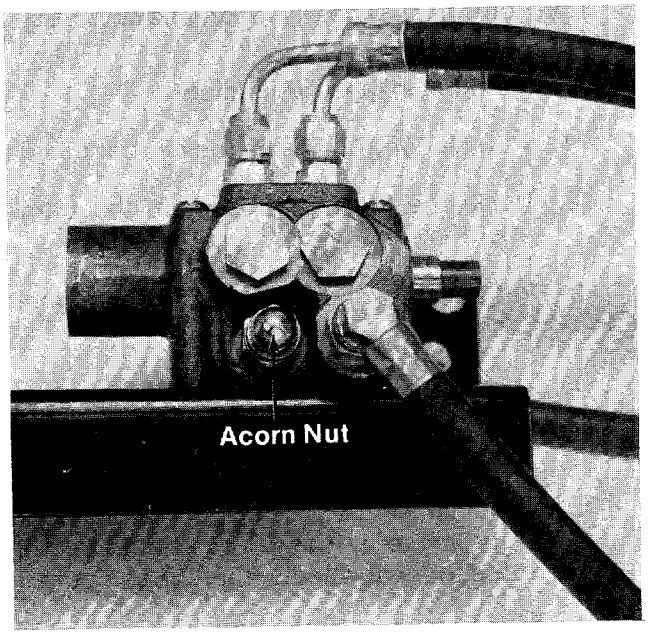


FIGURE 36.

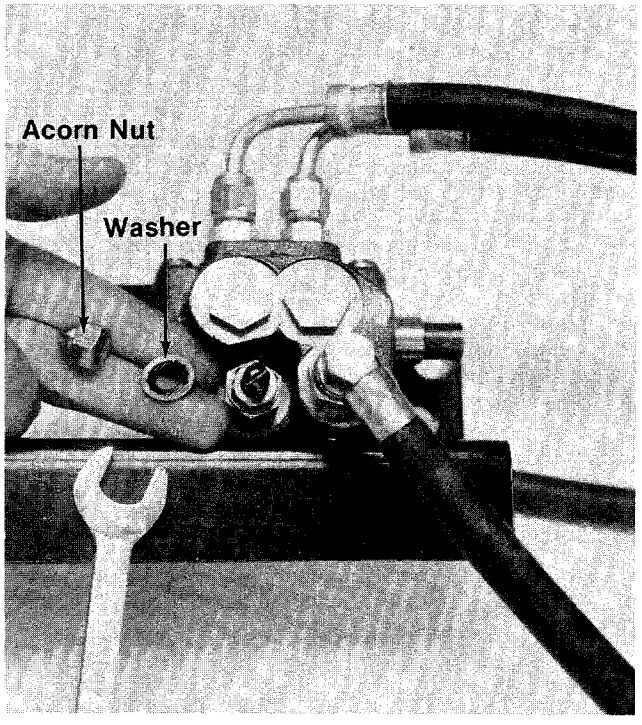


FIGURE 37.

2. Back off the lock nut at least three complete turns. (See figure 38.)

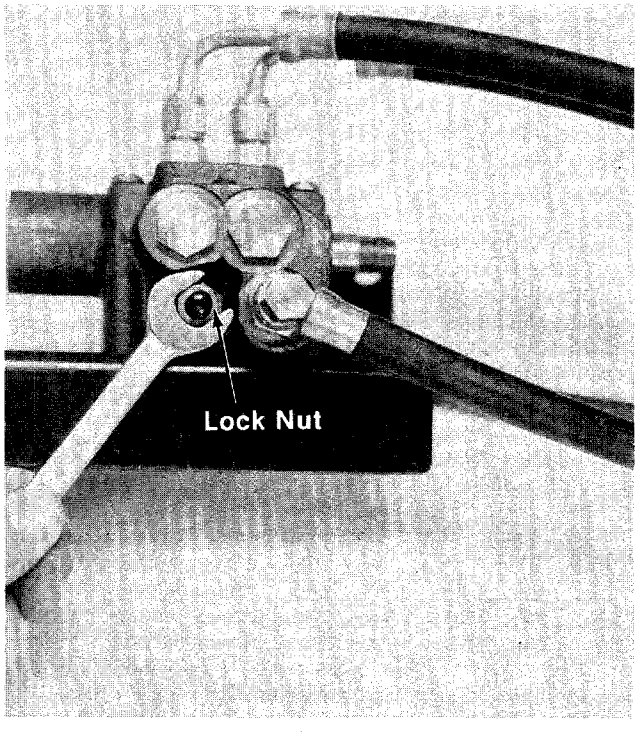


FIGURE 38.

3. Turn the screw in three complete turns. (See figure 39.)

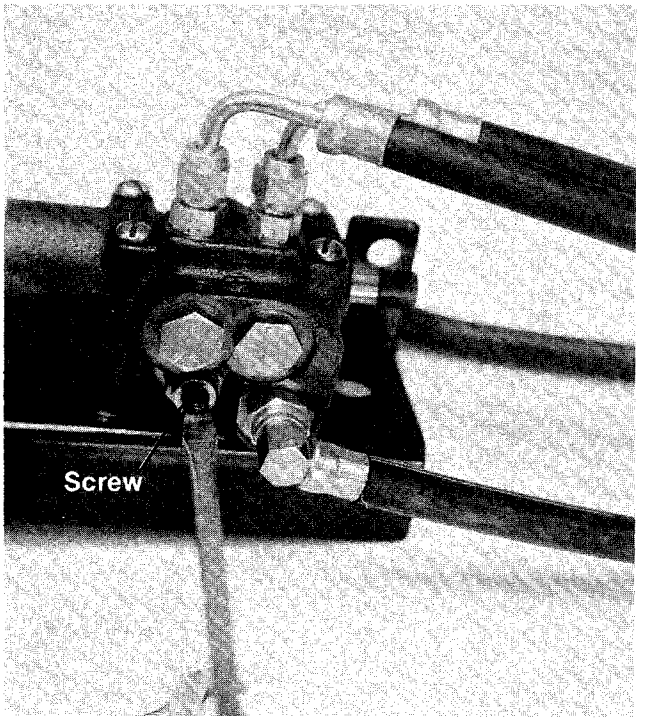


FIGURE 39.

4. Tighten the lock nut.
5. Reassemble the washer and acorn nut and tighten.
6. Test the hydraulic lift valve with the attachment on the tractor with the engine operating at maximum speed.
7. If additional adjustment is necessary, repeat steps one through six. Only turn the screw one turn.

Installation of Tire to Rim

WARNING

The following procedure must be followed when removing or installing a tire to the rim.

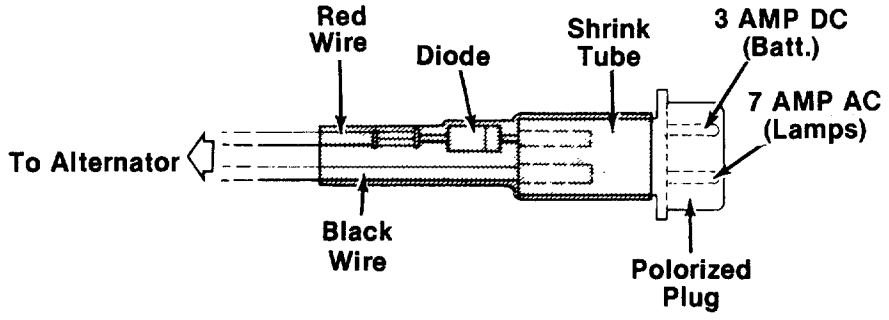
1. Lubricate tire beads and rim flanges.
2. Do not exceed 30 P.S.I. when seating beads.
3. Adjust to recommended pressure after beads are sealed.

Removing and Installing the Battery

Whenever a battery is installed in a tractor, attach the positive cable first and then the negative (ground) cable.

When removing the battery, always disconnect the negative cable first.

TROUBLE SHOOTING CHART FOR ELECTRIC START MODELS

TROUBLE	LOOK FOR	REMEDY
Engine will not crank	Battery installed incorrectly	The battery must be installed with the negative, identified at the terminal post by (Neg, N or -), grounded. The positive (Pos, P or +) attaches to the large cable from the solenoid. The small red wire from the fuse holder or circuit breaker is also attached to the positive terminal.
	Blow fuse or circuit breaker	Replace fuse with 7½ amp. fuse ¼ x 1¼" lg. Circuit breaker will reset itself when it cools off. Fuses or circuit breakers seldom open or fail without a reason. The problem must be corrected. Check for loose connections in the fuse holder. Replace fuse holder if necessary. A dead short may be in the cranking or charging circuit where the insulation may have rubbed through and exposed the bare wire. Replace the wire or repair with electrican's tape if the wire strands have not been damaged. Note: Look for a wire pinched between body panels, burned by the exhaust pipe or muffler or rubbed against a moving part.
	Battery is dead or weak	Use a hydrometer to check the condition of the battery. The Specific Gravity (s.g.) should be 1.265 at 80°F. (1.215 s.g. minimum needed for cranking engine). The reason for the battery failing must be determined. (1) Defective battery. Battery will not accept or hold a full charge. (2) Short circuit. Check for grounded wire. (3) Charging system not working. **Alternator.** The charging system is an alternator located under the flywheel. It is unregulated and rated 3 amp. at 3600 r.p.m. A diode (rectifier) is located in the output lead just before the wire harness plug on the engine side.  The diode changes A.C. to D.C. to charge the battery. A bad diode can either fail to charge the battery or discharge the battery if the alternator is shorted as well as the diode. To test: (1) Disconnect charger lead from the battery (small red wire). (2) Connect 12 V small test lamp between the 3 amp. D.C. charge lead and the positive terminal of the battery. (3) With the engine off, the lamp should not light. If it does, the diode and possibly the alternator should be replaced. (4) Start the engine. The lamp should light. If it does not,the alternator (stator) or lead wire is bad and should be replaced.
	Mechanical failure. (Wires and switches)	The interlock system includes two mechanical activated switches which are wired in series in the circuit used to energize the starter solenoid. While testing the interlock system, you will make the mower temporarily unsafe by permitting the engine to be started with the blade and clutch engaged. WARNING: While testing, disengage the clutch, shut off the blade control, set the parking brake and place the gear shift lever in neutral. Attach a wire (minimum 18 gauge) to the positive terminal of the battery and touch the other end to the small terminal on the solenoid. **If the engine does not crank:** (1) There is a loose connection or poor ground. (2) The solenoid may be bad. The solenoid can be checked by using a heavy wire (#8 gauge minimum) and jumping between the two large terminals. If the engine cranks, the solenoid is bad. (3) If the engine does not crank when you jump the solenoid, have the starter motor tested by an authorized engine dealer. If the engine does crank, the problem is with one of the safety switches, ignition switch or the wire between the fuse holder (or circuit breaker) and the small terminal on the solenoid. Note: Look for a poor connection at the switches or a defective switch. Replace if necessary.
Engine cranks but will not start	Throttle or choke not in starting position	Check owner's guide for correct position for throttle control and choke for starting.

TROUBLE SHOOTING CHART FOR ELECTRIC START MODELS

TROUBLE	LOOK FOR	REMEDY
	No spark to spark plug	Spark plug lead disconnected. Connect lead. Hold spark plug lead away from engine block about 1/8". Crank engine. There should be a spark. If not, have engine repaired at authorized engine service dealer. Faulty spark plug. To test, remove spark plug. Attach spark plug lead to spark plug. Ground the spark plug body against the engine block. Crank the engine. The spark plug should fire at the electrode. Replace if it does not.
	No fuel to the carburetor	Gasoline tank empty. Fill. Fuel valve shut off. Open valve. Valve is located either at the bottom of the fuel tank or on the carburetor. Fuel line plugged. Remove and clean.
	Air filter dirty	If the air cleaner is dirty, the engine may not start. Clean or replace as recommended by the engine manufacturer.
Engine smokes	Engine loses crankcase vacuum	Dipstick not seated or broken. Replace defective part. Engine breather defective. Replace.
Excessive vibration	Bent or damaged blade spindle	**Stop engine immediately.** Check all pulleys, blade spindles, blade adpaters, keys and bolts for tightness and damage. Tighten or replace any damaged parts.
	Bent blade	**Stop engine immediately.** Replace damaged blade. Only use original equipment blades.
Mower will not discharge grass or leaves uncut strips	Engine speed low	Throttle must be set between 3/4 and full throttle.
	Transmission selection	Use lower transmission speed. The slower your ground speed, the better the quality of cut.
	Blades short or dull	Sharpen or replace blades (uncut strip problem only).

HYDROSTATIC TRANSMISSION TROUBLE SHOOTING

No output torque (power) in either direction, cold start.	1. Recheck relief valve position, control linkage, input drive. 2. Oil level in reservoir low. 3. Broken control shaft dowel pin. Transmission must be repaired or replaced.
Loss of output torque, continous load.	1. Operating at conditions approaching hydraulic stall. The transmission fluid has exceeded 180°F. 2. Internal leakage due to wear. Transmission should be repaired or replaced. 3. Water in transmission fluid. Purge system of all fluid and replace with new transmission fluid. Replacement of the transmission is generally not necessary.
No output torque in one direction.	1. One of the directional valves is stuck. Transmission should be repaired or replaced. 2. Low oil level.
Riding mower cannot be pushed with engine off.	1. Relief valve control not set. 2. Relief valve travel not adjusted. 3. Motor piston or rotor seized. Transmission must be repaired or replaced.
No neutral.	1. Recheck linkage. Loose linkage creates an adjustment problem. Note: The hydraulic neutral band is very narrow. Deflection in the linkage may make it difficult to obtain neutral from both directions. It is recommended that neutral should be positive from forward drive.
Oil leakage at the control shaft seal.	1. Spillage when fluid has been added to the reservoir. 2. Spillage at the vent in the reservoir at operating temperatures due to cold level being too high or water in the fluid. Reduce fluid level or replace fluid in the event there is water in it (milky color). 3. Loose oil reservoir or cover. 4. Loose vent bolt. 5. Damaged control shaft seal. Transmission should be repaired.
Noisy Operation.	1. Operating at part throttle. Hydrostatic transmission is designed to operate with the engine running at full throttle. 2. Water in transmission fluid. Replace transmission fluid. 3. Air in transmission fluid. Bleed air from vent.
Output shaft rotates in the opposite direction.	1. The transmission body is 180° out of position. Transmission has to be removed and reassembled correctly.

Attaching The 12" Moldboard Plow (Optional) To The Tractor

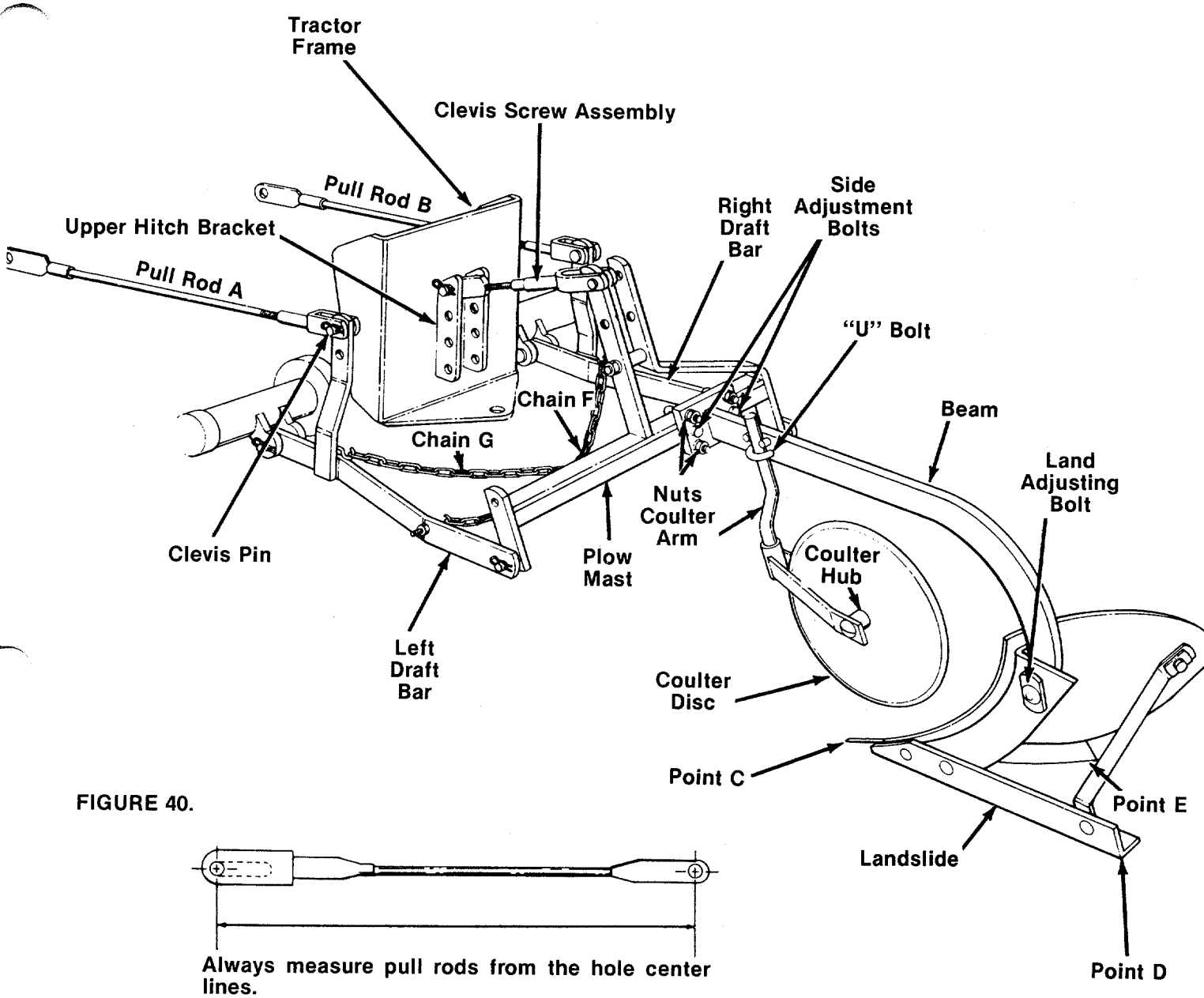


FIGURE 40.

Always measure pull rods from the hole center lines.

Preparing Tractor and 3-Point Hitch

The surface of the plow bottom must be cleaned so that dirt will slide off the moldboard without sticking. Wipe the polished surface with a rag soaked in turpentine, naptha or gasoline. An old brick or pumice stone can also be used to remove the protective coating, but usually this is not necessary if soil is not too wet or sticky.

Attaching the Plow to the Tractor

(See Figure 40.)

1. Place two 4" blocks under both the left front and left rear wheels of the tractor.
2. Attach the right and left pull rods to the clevis pins on the plow.
3. The upper hitch bracket on the rear of the tractor has two mounting positions. Place the upper hitch bracket in the two upper holes.
4. Adjust the length of the clevis screw assembly to 12½" long.

NOTE

Refer to inset drawing for correct way to measure the length of the clevis screw assembly.

5. Attach the flat end of the clevis screw assembly to the top hole in the upper hitch bracket using a clevis pin and cotter hairpin.

6. Attach the clevis end of the clevis screw assembly to the top left hole on the plow mast using a clevis pin and cotter hairpin.
7. Adjust pull rod A to 31½" long.
   Adjust pull rod B to 31" long.

NOTE

These two dimensions are approximate. Final adjustment will have to be made later.

8. The beam position is adjustable on the plow mast. To adjust, loosen the nuts on both of the "U" bolts. To plow hard soil, slide the bar to the right as far as it will move. For softer soil, move to the left. For very soft soil you can straddle the upright on the plow mast or even more to the left side of the plow mast.

NOTE

This adjusts the width of cut. The harder the soil the narrower cut you must take. Do not tighten the nuts on the "U" bolts at this time.

9. Use the two side adjustment bolts to adjust the beam so the landslide travels in a line parallel to the centerline of the tractor. (See figure 41.)

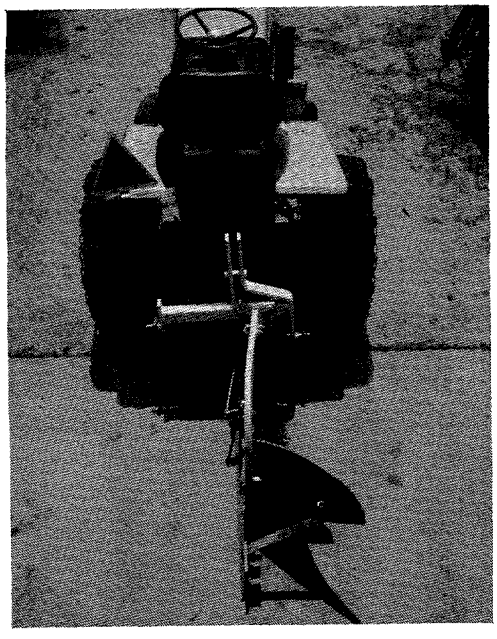


FIGURE 41.

10. Tighten the four nuts on the "U" bolts.
11. Make your final adjustment on the pull rods A and B so that:
    Point C touches the ground
    Point D is ½" off the ground
    Point E is ½" off the ground
    (See figure 40.)
12. Tighten the hook so chain F has no slack and chain G has approximately ½" travel.
13. Adjust the coulter arm so the bottom of the coulter disc is 1 inch off the ground.

Operation

The land adjusting bolt sets the angle of the share. If the plow comes out of the ground, loosen the land adjusting bolt and pivot the top of the share forward. This will make the plow penetrate deeper. To reduce the depth, pivot the top of the share backwards.

If the plow does not follow the tractor in a straight line, adjust the side adjustment bolts.

NOTE

Loosen the nuts of the "U" bolts to do this.

If the right and left draft bars swing off to the side too far making the plow run at an angle, readjust chains G and F.

If the plowed sod does not completely turn over, shorten rod B and lengthen rod A.

Hints for Best Performance

The width of cut is determined by the position of the beam on the mast. To plow hard soil, attach the beam close to the right side of the mast as shown in figure 40. For softer soil move the beam to the left.

Your first furrow up and back is referred to as a dead furrow. It may be necessary to shorten the clevis screw assembly slightly for these first two rows. Always plow your field the long way. (See figure 42.)

Always lift the plow at the end of the row to make the turn. After you make your dead furrow, the right wheels of the tractor run in the furrow.

Never plow wet soil. If the soil is very dry, it will be difficult for the plow to properly lay over the soil. If you are busting the sod for the first time, it will be more difficult and it may be necessary to adjust the angle and depth of the plow for the conditions.

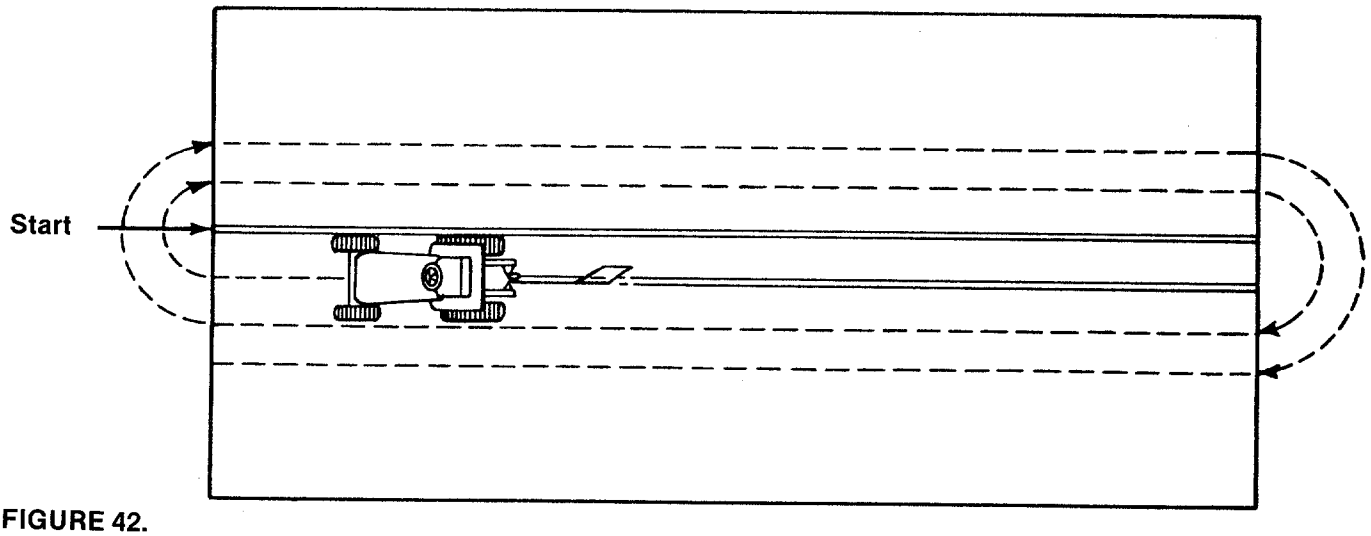


FIGURE 42.

Attaching The Rotary Tiller (Optional) To The Tractor

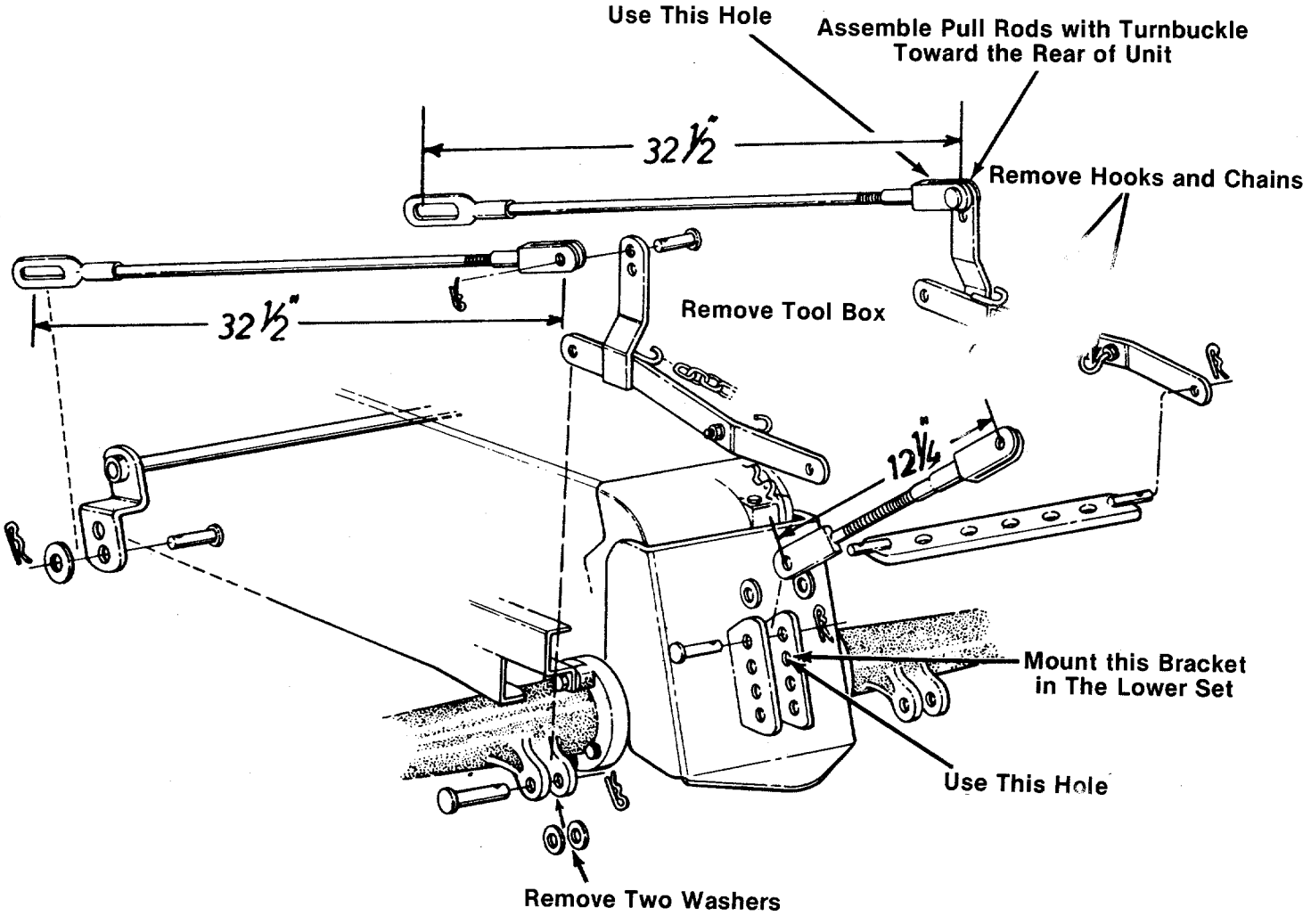


FIGURE 43.

Attaching the Rotary Tiller to the Tractor

1. Before attaching your rotary tiller to your tractor, be sure the rear wheels on the tractor are all the way into the minimum wheel width.
2. Remove the draw bar assembly from the three point hitch of your tractor by removing the two cotter hairpins.
3. Adjust the tractor pull rods to 32½" long. See figure 43.
4. Place the rotary tiller behind the tractor in the approximate position shown in figure 44.
5. Attach the universal drive shaft to the tractor power take off. Tighten set screw. See figure 40.
6. Start the tractor engine and, using the hydraulic lift lever, lower the draft bars until they line up with the pivot brackets. Attach with washers and cotter hairpins.
7. Be sure the mounting bracket on the rear tractor frame is mounted in the two lower holes.

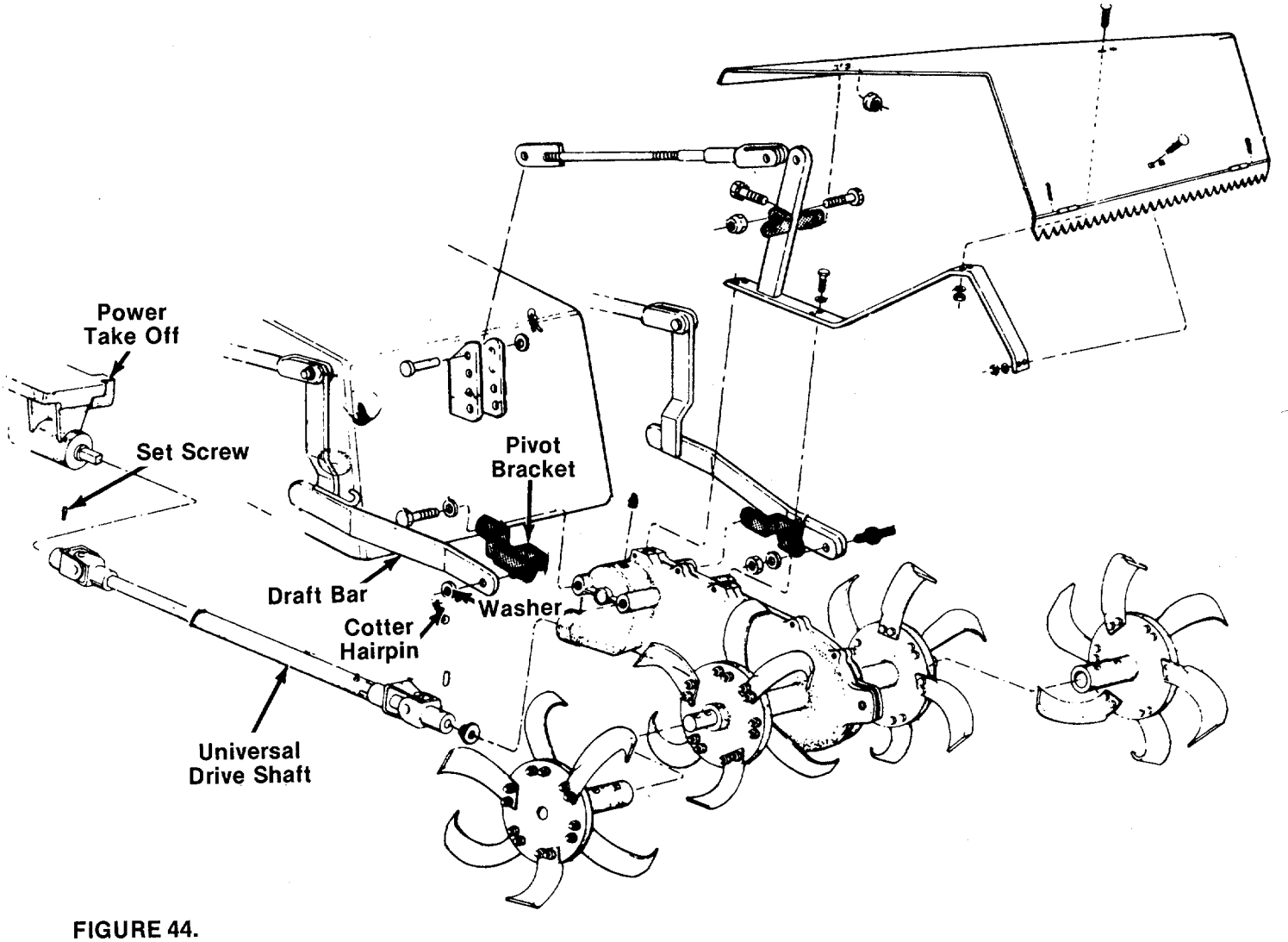


FIGURE 44.

8. Remove the tool tray on the rear of the tractor.
9. Adjust the clevis screw assembly to 12¼" and attach the clevis end to the mast on the tiller.
10. Attach the other end of the clevis screw assembly in the second hole from the top of the mounting bracket.

⚠ CAUTION

Before operating your tiller, slowly raise the tiller with the hydraulic lift. The universal drive shaft must NOT touch the transaxle gear case or any other part of the tractor. If it does, adjust your pull rods and clevis screw assembly until it clears.

General Rotary Tiller Operation

ALWAYS shut the engine off when removing a stone or anything that becomes entangled in the tines.

All large stones or rocks should be removed from the area before you begin tilling.

Tilling can be done with or without the outer tine assemblies. You can till 32½" wide with the outer tines and 17" wide with only the inner tines.

Use rear wheel weights when tilling.

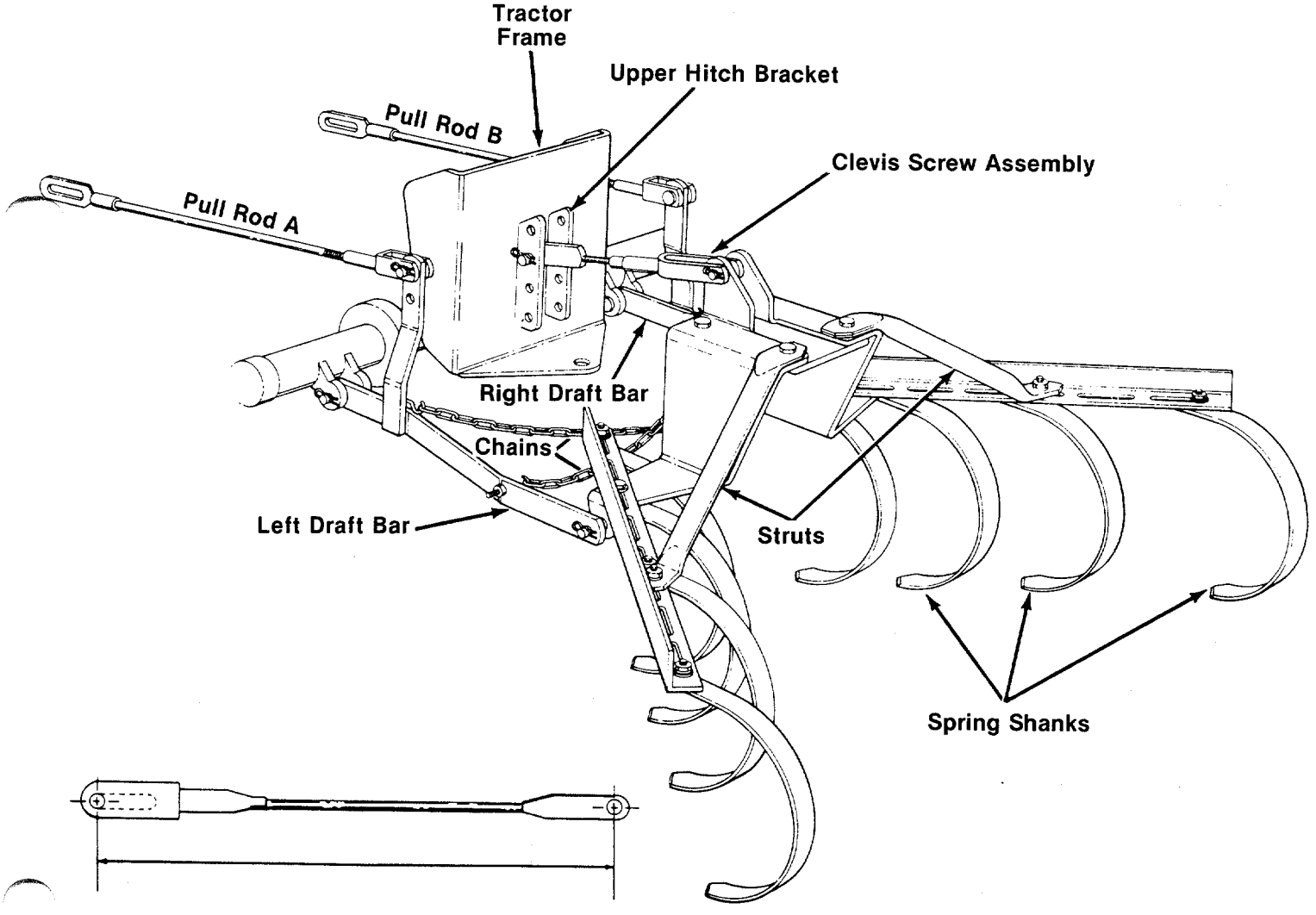
Maximum tilling depth is approximately 10" depending on the type of soil. This CANNOT be accomplished in one pass. Maximum tilling depth may be only 2½" on extremely hard soil on the first pass.

The more passes you make with the tiller over the same area, the deeper you can till and the finer you pulverize the soil. Change directions as often as you can to level out the ground and to prevent furrows.

When tilling, the tiller will push the tractor and the transmission on the tractor will hold the tractor back.

For easy lifting of the rotary tiller from the ground, shut off the power by disengaging the PTO handle and continue to drive the tractor forward. The tines will climb out of the hole when you pull the lift lever handle back.

Attaching The Spring Shank Cultivator (Optional) To The Tractor



Always measure pull rods from the hole center lines.

FIGURE 45.

Attaching to Tractor

1. Adjust the tractor rear wheels out as far as they will go to give maximum plant clearance. (See tractor manual.)
2. Adjust the length of the pull rods by screwing the ends in or out.
   Pull Rod A 32½
   Pull Rod B 32½
3. Attach the pull rods to the right and left draft bars.
4. Adjust the clevis screw assembly length to 13½".
5. Attach the flat end of the clevis screw assembly to the upper hitch bracket. Use second hole from top.
6. Attach the clevis end of the clevis screw assembly to the top hole in the cultivator frame.
7. Tighten the two chains to prevent side sway of the cultivator during operation.

Adjustments

The final adjustment of the cultivator will be made under operating conditions. Lengthening or shortening of the clevis screw assembly causes the spring shanks to dig shallow or deeper.

Weights may also be added to the cultivator frame for deeper cultivating.

The width of the cultivator can be adjusted by changing the position of the frame struts. Both sides should be adjusted the same so the cultivator pulls evenly.

Attaching The Double Disc (Optional) To The Tractor

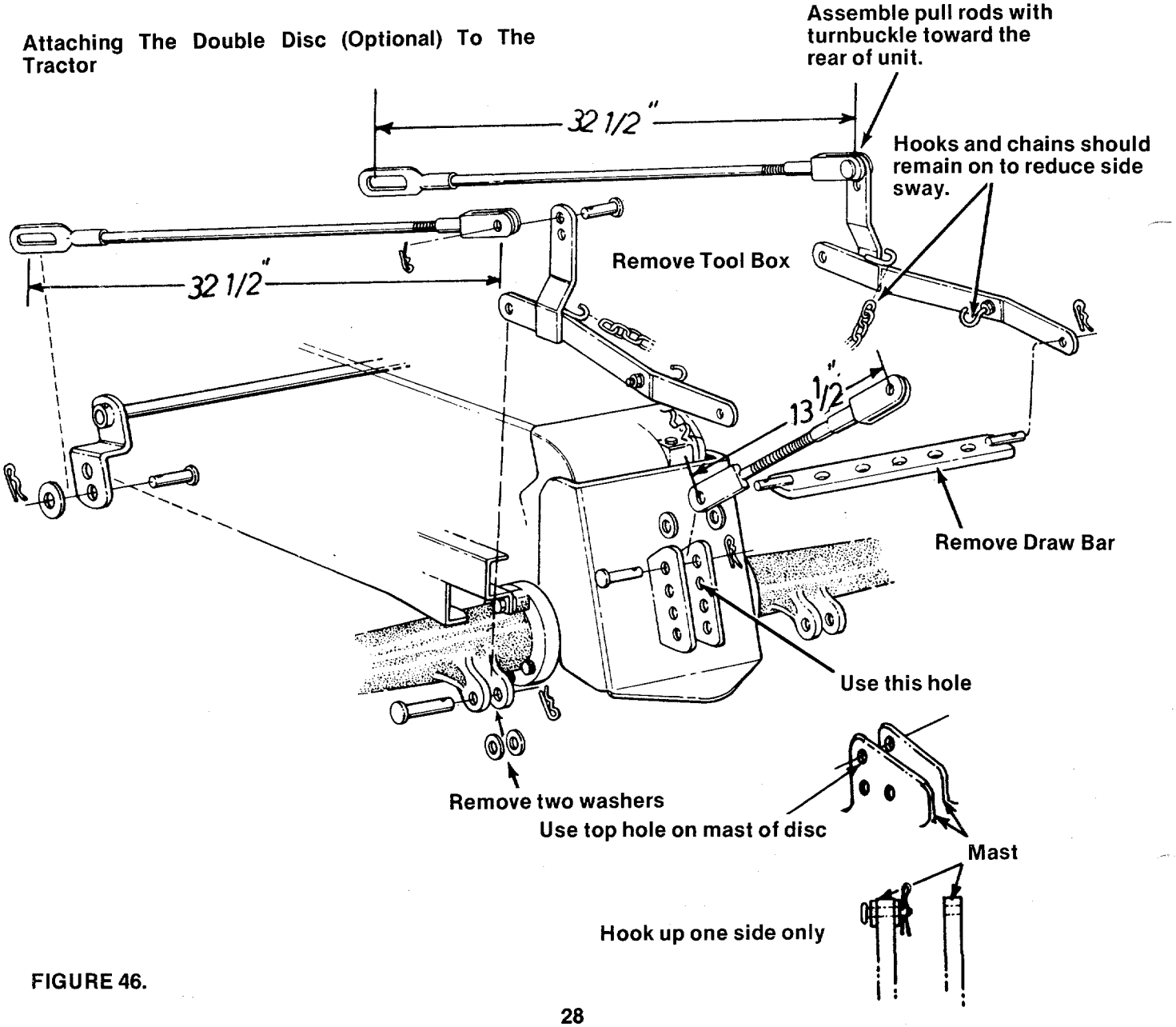
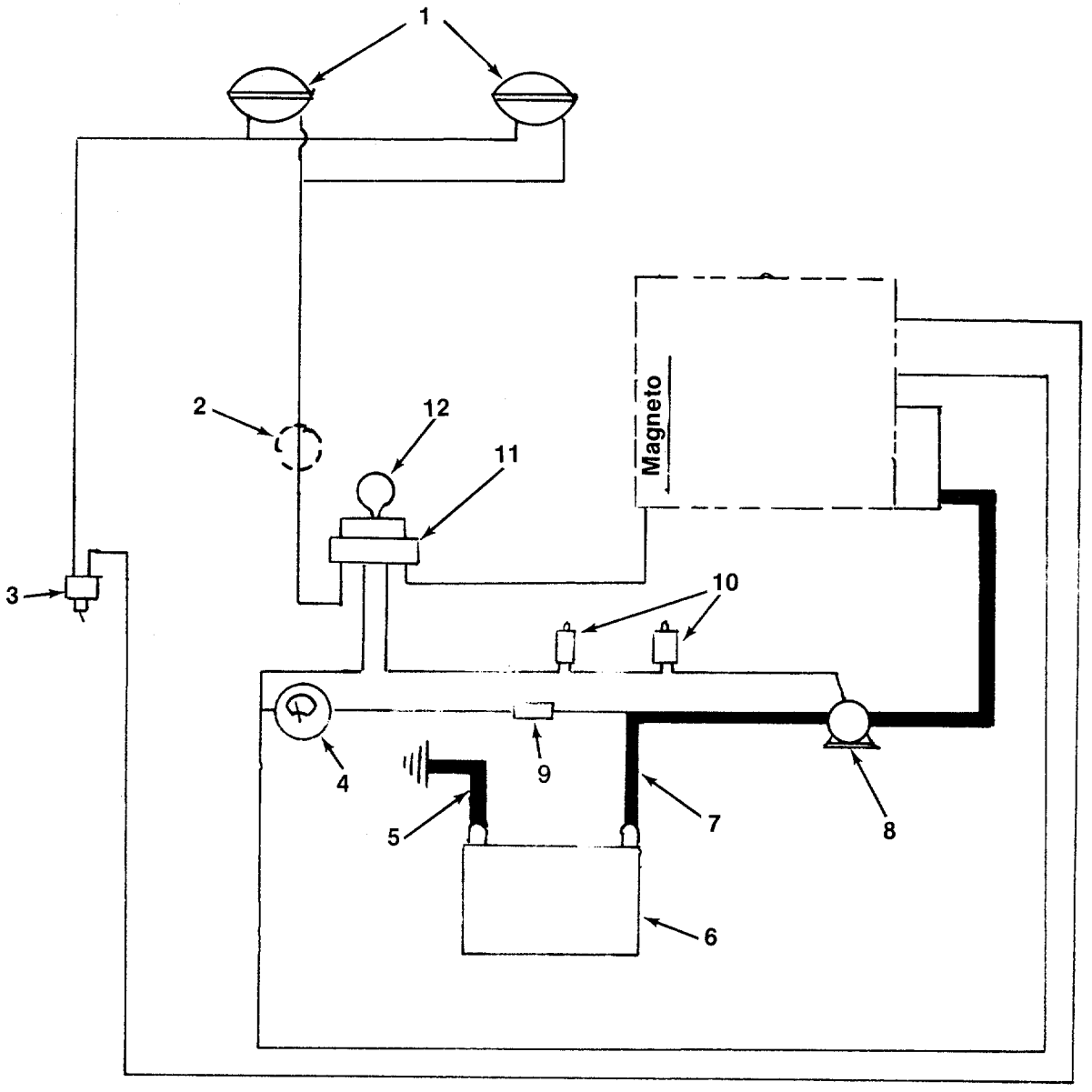

Assemble pull rods with turnbuckle toward the rear of unit.
32 1/2"
Hooks and chains should remain on to reduce side sway.
32 1/2"
Remove Tool Box
13 1/2"
Remove Draw Bar
Use this hole
Remove two washers
Use top hole on mast of disc
Mast
Hook up one side only

FIGURE 46.

140-990A



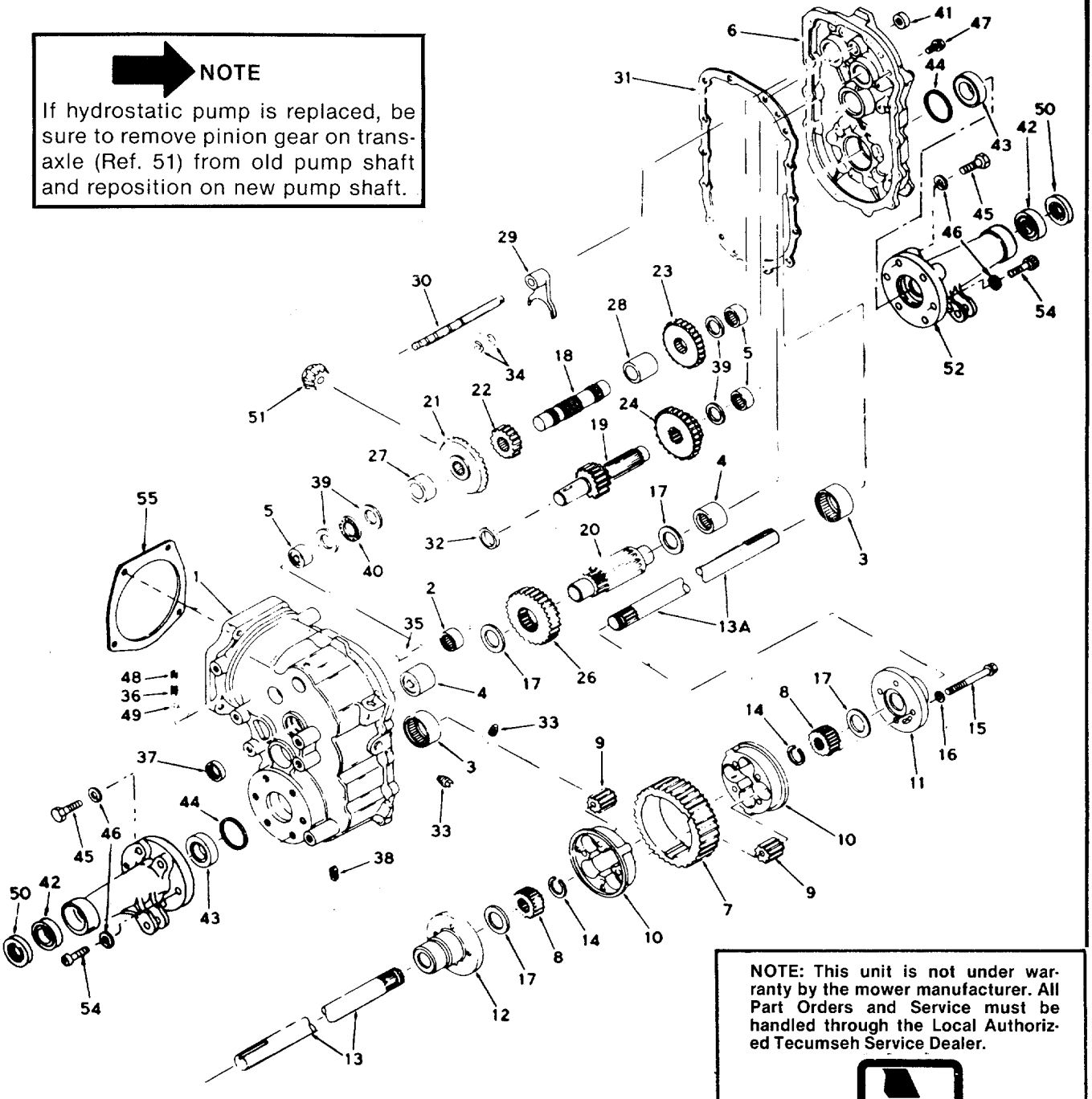
PARTS LIST FOR ELECTRICAL SYSTEM MODEL 140-990A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	725-0222		Head Lamps	
2	725-0721		Wire Harness	
3	725-0646		Light Switch	
4	725-0119		Ammeter	
5	725-0139		Battery Cable	
6	725-0130		Battery	
7	725-0258		Battery Cable	
8	725-0530		Solenoid	
9	725-0459		Circuit Breaker	
10	725-0268		Safety Switch	
11	725-0267		Key Switch	
12	725-0201		Ignition Key	

140-990A

NOTE

If hydrostatic pump is replaced, be sure to remove pinion gear on transaxle (Ref. 51) from old pump shaft and reposition on new pump shaft.



TRANSAXLE MODEL 2503

NOTE: This unit is not under warranty by the mower manufacturer. All Part Orders and Service must be handled through the Local Authorized Tecumseh Service Dealer.

yellow pages

PEERLESS MODEL 2503

This unit is under warranty by Tecumseh Products Company. Parts and Service are available through all Tecumseh, Lauson Power Products Service Dealers. Check the "Yellow Pages" of your telephone directory under "Engines—Gasoline."

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PARTS LIST FOR TRANSAXLE MODEL 2503

REF. NO.	PART NO.	DESCRIPTION
1	PE-770060	Case Ass'y., Transaxle (Incl. Nos. 2 thru 5)
2	PE-780097	Bearing, Needle
3	PE-780098	Bearing, Needle
4	PE-780099	Bearing, Needle
5	PE-780100	Bearing, Needle
6	PE-772065	Cover Ass'y., Transaxle (Incl. 3, 4 & 5)
7	PE-778084	Gear, Ring
8	PE-778085	Gear, Side
9	PE-778086	Gear, Pinion
10	PE-786054	Core, Body
11	PE-774199	Carrier, Differential
12	PE-774200	Carrier, Differential
13	PE-774204	Axle, Left Hand
13A	PE-774205	Axle, Right Hand
14	PE-792062	Ring, Snap
15	PE-792063	Screw, 3/8-16 x 3-3/8 Hex Hd.
16	PE-792011	Lock Washer, 3/8"
17	PE-780101	Washer, Thrust
18	PE-776118	Shaft, Counter
19	PE-776122	Shaft, Brake
20	PE-776120	Pinion, Output
21	PE-778087	Gear, Bevel (30 Teeth)
22	PE-778088	Gear, Spur (16 Teeth)
23	PE-778096	Gear, Spur (23 Teeth)
24	PE-778097	Gear, Cluster (20 and 27 Teeth)
26	PE-778098	Gear, Output (37 Teeth)
27	PE-786055	Spacer
28	PE-786056	Spacer
29	PE-784195	Fork, Shift
30	PE-784196	Rod, Shift
31	PE-780047	Gasket, Case and Cover
32	PE-780005	Spacer
33	PE-792010	Plug, Pipe
34	PE-792064	Ring, Snap
35	PE-786026	Pin, Dowel
36	PE-792003	Spring
37	PE-788008	Seal, Oil
38	PE-792019	Plug, Magnetic Drain
39	PE-780045	Washer, Thrust
40	PE-780012	Bearing, Thrust
41	PE-788034	Seal, Oil
42	PE-780103	Bearing, Ball
43	PE-780104	Bearing, Thrust
44	PE-788048	Seal, Square Cut
45	PE-792065	Screw, ½-13 x 1½ Hex Hd.
46	PE-792066	Lock Washer, ½"
47	PE-792067	Screw, 5/16-18 x 1 Thd. Forming Hex Hd.
48	PE-792068	Screw, ¼-20 x ½ Set
49	PE-792001	Ball, Steel
50	PE-788049	Seal, Oil
51	PE-778093	Pinion, Bevel
52	PE-782039	Housing, Axle
53	PE-782040	Housing, Axle
54	PE-792069	Screw, ½-13 x 1½ Allen Hd. Cap
55	PE-788050	Gasket

721-016

NOTE: This unit is not under warranty by the mower manufacturer. All Part Orders and Service must be handled through the Local Authorized Tecumseh Service Dealer.

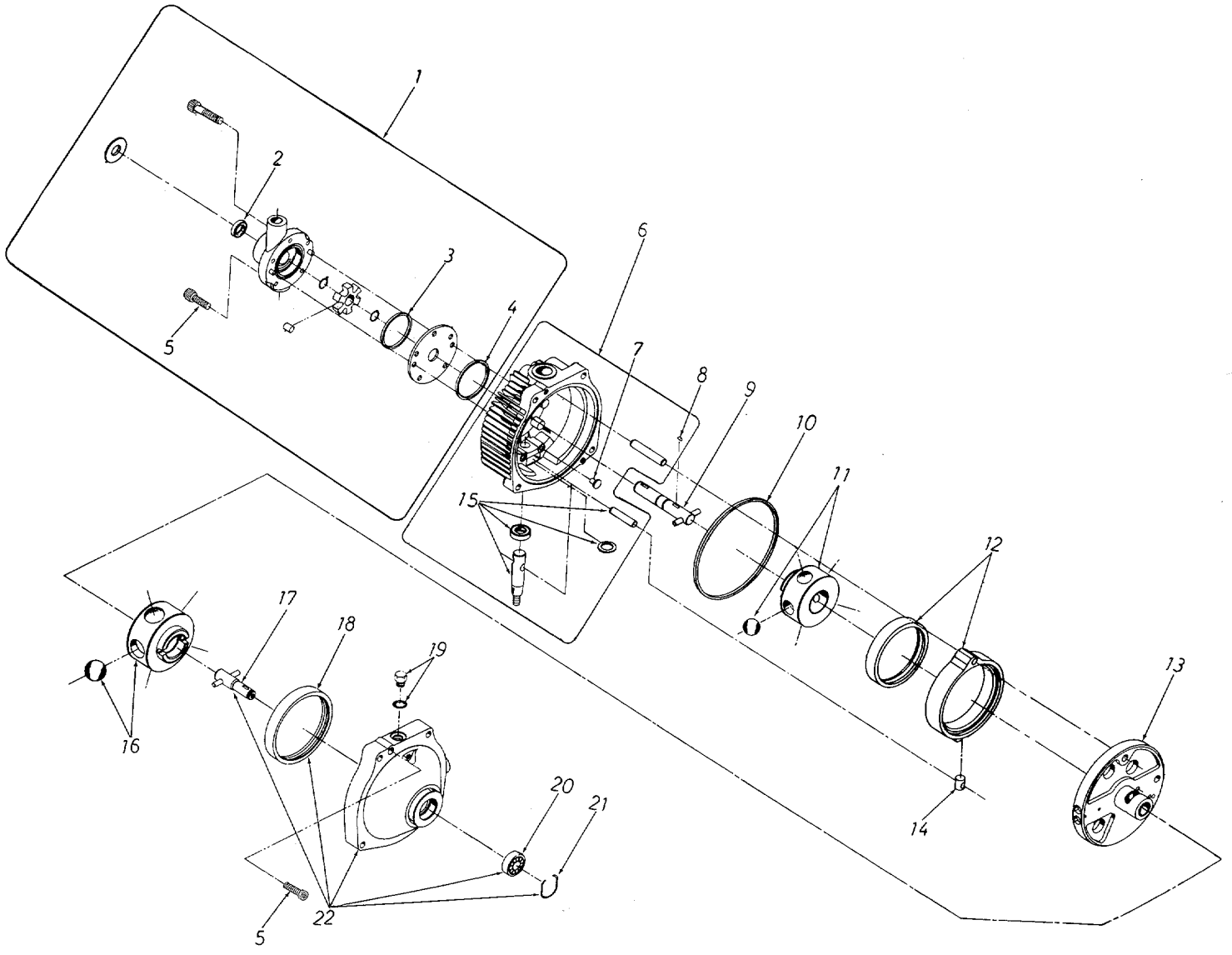
PEERLESS MODEL 2503

This unit is under warranty by Tecumseh Products Company. Parts and Service are available through all Tecumseh, Lauson Power Products Service Dealers. Check the "Yellow Pages" of your telephone directory under "Engines—Gasoline."

140-990A

NOTE

If hydrostatic pump is replaced, be sure to remove pinion gear on transaxle (Ref. 51 on page 30) from old pump shaft and reposition on new pump shaft.



140-990A

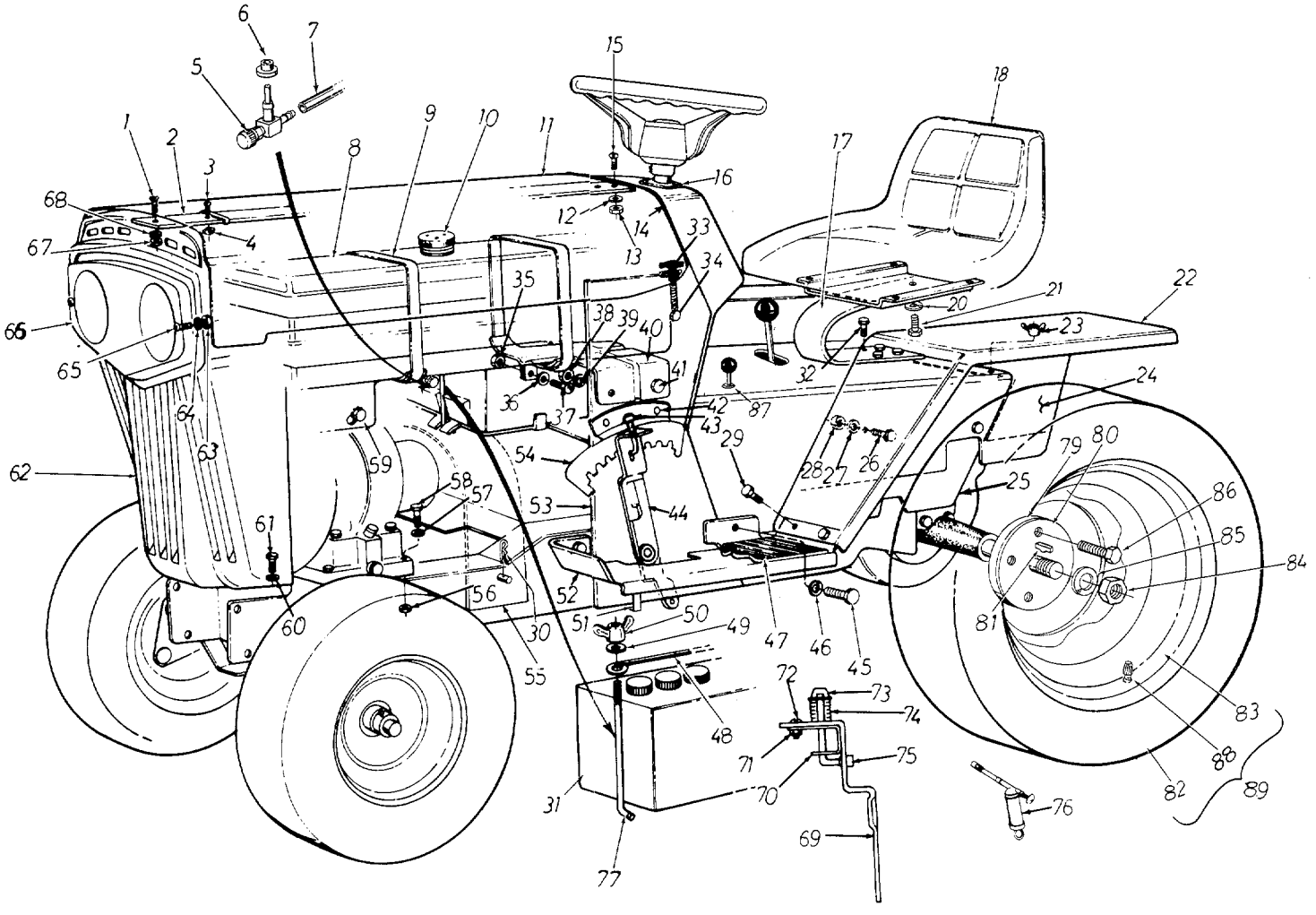
PARTS LIST FOR MARSHALLMATIC M-10 HYDROSTATIC PUMP MODEL NO. 717-0344

REF. NO.	PART NO.	DESCRIPTION
1	ET-990045	Charge Pump Kit
2	ET-92999	Oil Seal
3	ET-008771-036	Square Cut Seal Ring .036
4	ET-008771-038	Square Cut Seal Ring .038
5	ET-095912-125	Socket Head Cap Screw 5/16-18 x 1.25" Long
6	ET-101573	Cover Subassembly
7	ET-101597	Button
8	ET-90880	Drive Pin
9	ET-24129	Input Shaft Subassembly
10	ET-008771-166	Square Cut Seal Ring .166
11	ET-101470	Pump Rotor—Ball Subassembly
12	ET-101904	Cam Ring Subassembly
13	ET-101571	Pintle Subassembly
14	ET-97841	Cam Ring Insert
15	ET-990136	Control Shaft Kit
16	ET-101853	Motor Rotor—Ball Subassembly
17	ET-24608	Output Shaft Subassembly
18	ET-40525	Motor Race
19	ET-025090-006	"O"-Ring Plug Subassembly
20	ET-97879	Ball Bearing (Output)
21	ET-91231	Retaining Ring
22	ET-102583	Body Subassembly

NOTE

A complete disassembly procedure and repair manual for the hydrostatic pump is available from the factory. Write for manual covering Model 717-0344. Form No. 770-5390.

140-990A



NOTE

This instruction manual covers various models and all specifications shown do not necessarily apply to your model. Specifications subject to change without notice or obligation.

LEFT HAND VIEW

PARTS LIST FOR MODEL 140-990A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	710-0350		Counter Sunk Fl-Hd. Scr. ¼-20 x 1" Lg.	
2	09576		Grille Brace	
3	710-0166		Truss Mach. Scr. ¼-20 x 1" Lg.	
4	712-0287		Hex Nut ¼-20 Thd.	
5	751-0171		Filter and Shutoff Valve	
6	735-0149		Rubber Bushing	
7	751-0173		Gas Hose 17" Lg.	
8	751-0174		Fuel Tank	
9	12919		Fuel Tank Strap	
10	723-0333		Fuel Gauge	
11	12290	—462	Hood	
12	736-0329		L-Wash. ¼ Scr.*	
13	712-0287		Hex Nut ¼-20 Thd.*	
14	731-0130		Ext. Vinyl—21.5" Lg.	
15	710-0166		Truss Mach. Scr. ¼-20 x 1.00 Lg.	
16	10706		Steering Tube Hole Cover	
17	732-0325		Seat Spring	
18	757-0274		Seat Ass'y.	
20	736-0921		L-Wash. ½ Scr.	
21	710-0493		Hex Scr. ½-13 x 1" Lg.	
22	10739	—462	Fender Ass'y. L.H.	
	10740	—462	Fender Ass'y. R.H. (Not Shown)	
23	712-0109		Ins. Wing L-Nut ¼-20 Thd.	
24	10927		Tool Tray Ass'y.	
25	14211		Rear Frame Cover Ass'y.	N
26	710-0258		Hex Scr. ¼-20 x .62" Lg.*	
27	736-0329		L-Wash. ¼" Scr.*	
28	712-0287		Hex Nut ¼-20 Thd..	
29	710-0134		Carriage Bolt ¼-20 x .62 Lg.	
30	714-0117		Hairpin Cotter	
31	725-0130		Battery	
32	710-0322		Hex Sems Scr. 5/16-18 x 1.00" Lg.	
33	723-0296		Hood Latch Ass'y.	
34	710-0258		Hex Scr. ¼-20 x .62 Lg.*	
35	712-0287		Hex Nut ¼-20 Thd.*	
36	736-0329		L-Wash. ¼-Scr.*	
37	710-0279		Fillister Hd. Scr. ¼-20 x 1.75" Lg.	
38	712-0798		Hex Nut 3/8-16 Thd.*	
39	736-0169		L-Wash. 3/8 Scr.*	
40	10726		Fuel Tank Brkt. Rear	
41	710-0253		Hex Scr. 3/8-16 x 1.00" Lg.*	
42	710-0253		Hex Scr. 3/8-16 x 1.00" Lg.*	
43	726-0110		Push Cap	
44	11333		Lift Pre-Set Brkt. Ass'y.	
45	710-0253		Hex Scr. 3/8-16 x 1.00" Lg.*	
46	736-0169		L-Wash. 3/8 Scr.*	
47	723-0303		Foot Pad 3.25 x 8.5 Lg.	
48	711-0278		Battery Hold Down Rod	
49	736-0173		Fl-Washer .28 I.D. x .75 O.D.	
50	712-0109		Wing Nut ¼-20 Thd.	
51	12739		Locking Clip	
52	10747		Foot Pad L.H.	
	10746		Foot Pad R.H. (Not Shown)	
53	12702		Side Plate L.H.	
54	11336		Index Brkt. L.H.	
55	10482		Clutch Guard	
56	712-0798		Hex Nut 3/8-16 Thd.*	
57	736-0169		L-Wash. 3/8" Scr.*	
58	710-0344		Hex Scr. 3/8-16 x 1.50" Lg.*	
59	710-0198		Sems Scr. 5/16-18 x .75" Lg.	
60	736-0169		L-Wash. 3/8 Scr.*	
61	710-0253		Hex Scr. 3/8-16 x 1.00 Lg.*	
62	719-0250		Grille	N
63	712-0287		Hex Nut ¼-20 Thd.*	
64	736-0329		L-Wash. ¼" Scr.*	
65	710-0346		Hex Scr. ¼-20 x 1.50" Lg.*	
66	09516		Head Lamp Bezel	
67	712-0287		Hex Nut ¼-20 Thd.*	
68	736-0329		L-Wash. ¼" Scr.*	
69	11334		Lift Brkt. Pre-Set	
70	11343		Locking Rod Guide	
71	712-0121		Sq. Nut #10-24 Thd.	
72	710-0399		Truss Sems Scr. #10-24 x .50" Lg.	
73	726-0110		Push Cap	
74	732-0165		Compression Spring	
75	11335		Locking Rod	
76	727-0143		Grease Gun	
77	711-0284		Battery Hold Down Stud	
79	13572		Tractor Wheel Hub Ass'y.	N
80	13574		Hub Plate	
81	714-0114		Sq. Key ¼" x 2.00" Lg.	
82	734-0397		Rear Tire 27 x 9.50"	
83	734-0935		Rear Wheel Rim	
84	712-0288		Hex Ins. L-Nut 3/4-16 Thd.	
85	1541-006		L-Wash. 3/4" Scr.	
86	710-0470		Wheel Lug Bolts ½-20 x 1.50" Lg.	
87	731-0405		Snap Bushing	
88	734-0936		Air Valve	
89	734-0934		Rear Wheel Ass'y.	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

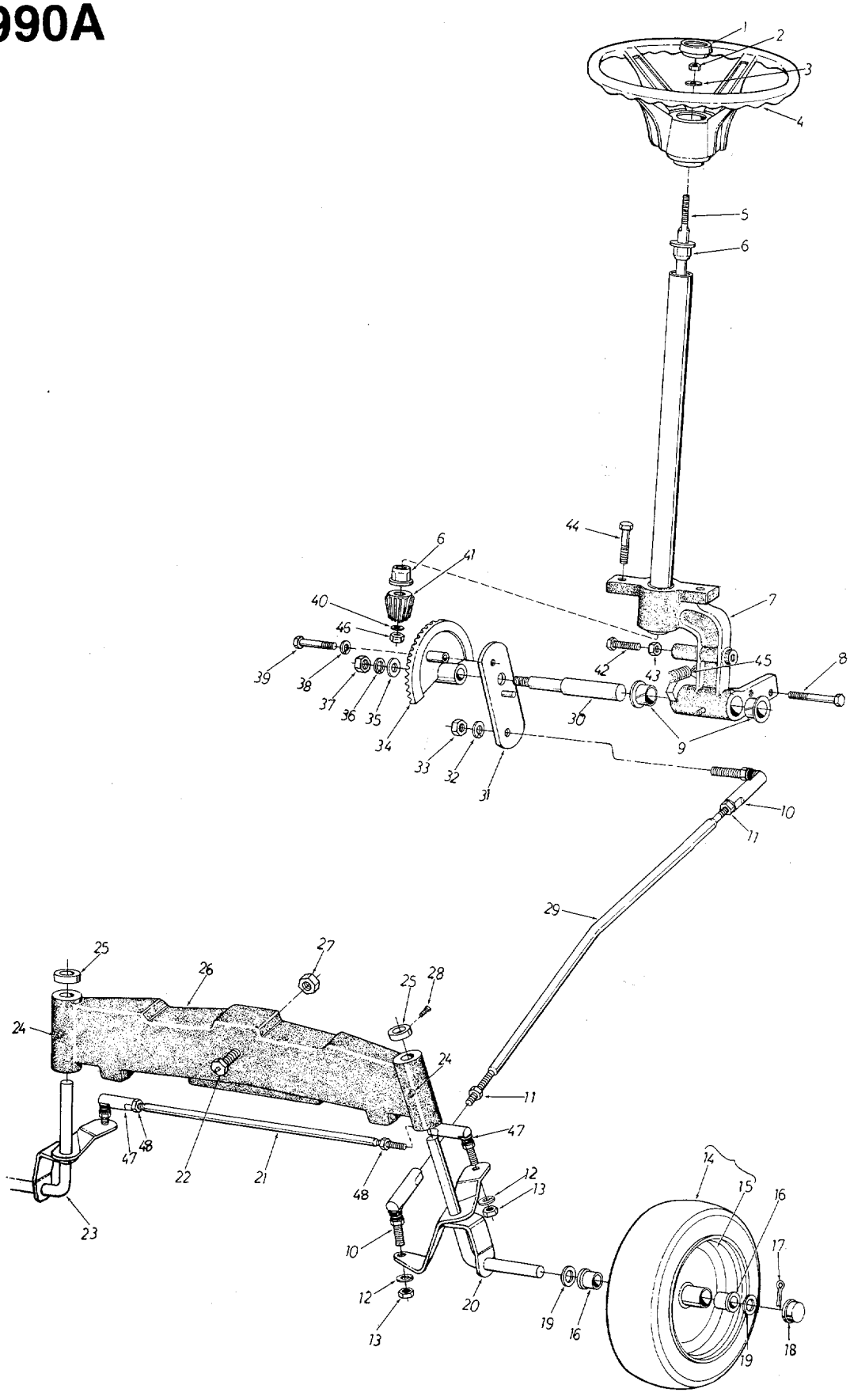
(462—Red Flake)

When ordering parts, if color or finish is important use the appropriate color code shown above. (e.g. Red Flake Finish—12290 (462).)

NOTE: The engine is not under warranty by the mower manufacturer . . . If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."

Find It Fast In The Yellow Pages

140-990A



STEERING ASSEMBLY

PARTS LIST FOR MODEL 140-990A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	731-0220		Steering Wheel Cap	
2	712-0158		Hex Cent. L-Nut 5/16-18 Thd.	
3	736-0170		Bell-Wash. .325 I.D. x 1" O.D. x .062	
4	731-0356		Steering Wheel	
5	738-0474		Steering Shaft	N
6	748-0110		Flange Brg. .628" I.D.	
7	14145		Steering Seg. Support Ass'y.	N
8	710-0253		Hex Scr. 3/8-16 x 1.00" Lg.*	
9	741-0315		Flgd. Ny-Liner Brg. 7/8" I.D.	N
10	723-0179		Drag Link Joint Ass'y.	
11	712-0922		Hex Nut ½-20 Thd.	
12	736-0921		L-Wash. ½" I.D.	
13	712-0200		Elastic Stop Nut ½-20 Thd.	
14	734-0526		Tire 16 x 6.50 Tubeless	
15	734-0787		Front Wheel Rim Ass'y.	
16	731-0374		Flange Brgs. 1" I.D.	
17	714-0142		Cotter Pin 3/16" Dia. x 1.50" Lg.	
18	731-0349		Dust Cover	
19	736-0259		Fl-Wash. 1.00 I.D. x 1.62" O.D.	
20	13579		Front Axle Ass'y. L.H.	
21	711-0454		Tie Rod	
22	710-0335		Pivot Bolt 3/4-10 x 4.00" Lg.	
23	13578		Front Axle Ass'y. R.H.	
24	737-0479		Grease Fitting	
25	711-0518		Axle Collar	
26	10587		Front Axle Support	
27	712-0205		Elastic Stop Nut ¾-10 Thd.	
28	710-0356		Sq. Hd. Set Scr. 5/16-18 x .50" Lg.	
29	747-0338		Drag Link	N
30	738-0475		Steering Gear Shaft	N
31	14155		Steering Arm Ass'y.	N
32	736-0921		L-Wash. ½" I.D.	
33	712-0200		Elastic Stop Nut ½-20 Thd.	
34	748-0238		Bevel Gear	
35	736-0192		Fl-Wash. .531 I.D. x .930 O.D. x .090	
36	736-0921		L-Wash. .500" I.D.	
37	712-0200		Hex Cent. L-Nut ½-20 Thd.	
38	736-0169		L-Wash. 3/8" I.D.*	
39	710-0344		Hex Scr. 3/8-16 x 1.50" Lg.*	
40	736-0264		Fl-Washer .330 I.D. x .630 O.D.	
41	748-0237		Pinion Gear	
42	710-0670		Nylon Hex Scr. 3/8-16 x 1.25 Lg.	
43	712-0342		Hex Nut 3/8-16 Thd.	
44	710-0253		Hex Scr. 3/8-16 x 1.00 Lg.	
45	732-0121		Brake Return Spring	
46	712-0237		Hex Cent. L-Nut 5/16-24 Thd.	
47	723-0156		Tie Rod End	
48	712-0711		Hex Jam Nut 3/8-24 Thd.	
49	734-0771		Front Wheel Ass'y. Comp.	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

The engine is not under warranty by the mower manufacturer. If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines — Gasoline."

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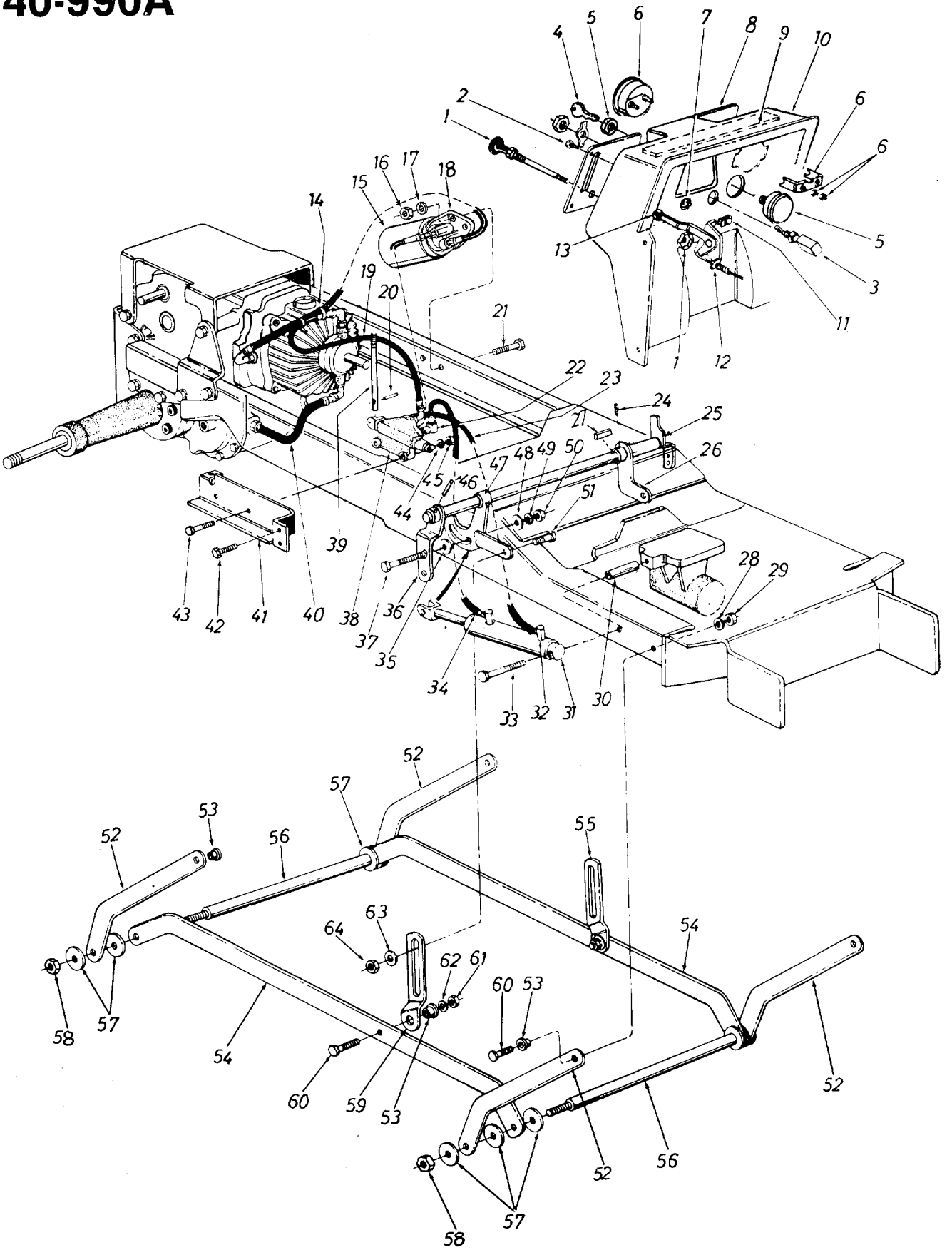


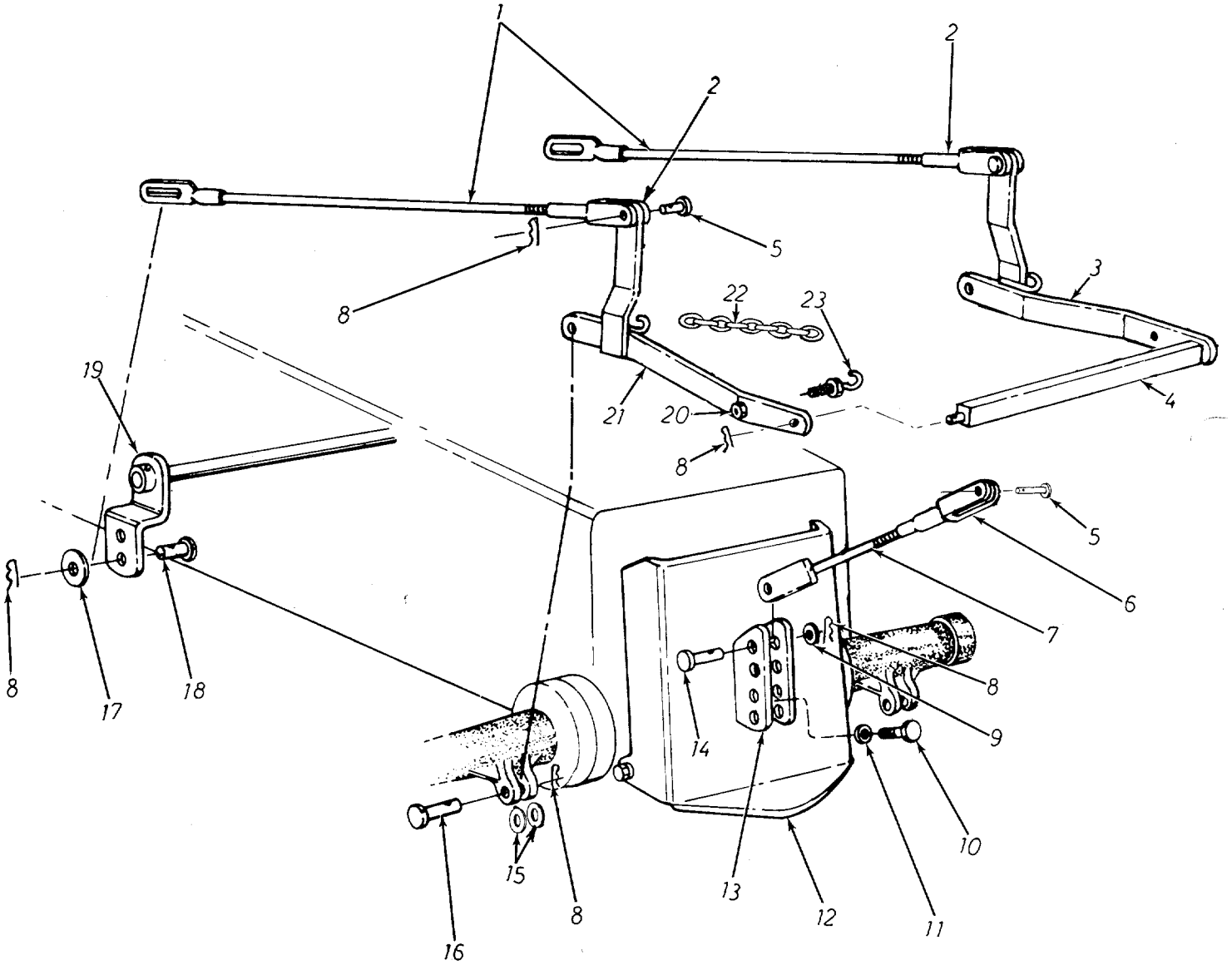
HYDRAULIC SYSTEM

PARTS LIST FOR MODEL 140-990A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	746-0129		Choke Control	
2	710-0351		Phil. Head Scr. #10-Type Z x .50" Lg.*	
3	725-0646		Light Switch	
4	725-0201		Ignition Key	
5	725-0267		Key Switch	
6	725-0119		Ammeter	
7	726-0119		Plug Button	
8	09528		Bezel Instrument Panel	
9	12809		Dash Panel Support	
10	10850		Dash Panel	
11	712-0526		Speed Nut #10-24	
12	746-0130		Throttle Control	
13	720-0166		Throttle Control Knob	
14	725-0157		Cable Tie—Self Locking	
15	727-0162		Fram Filter Ass'y. PH-16	
16	712-0267		Hex Nut 5/16-18 Thd.*	
17	736-0119		L-Wash. 5/16" I.D.*	
18	727-0163		Filter Base	
19	727-0167		Pump to Valve Hose	
20	715-0247		Spring Pin Rod 3/16 Dia. x 1" Lg.	
21	710-0198		Hex Serns Scr. 5/16-18 x .75 Lg.	
22	727-0187		Flare Adapter	
23	727-0182		Hose—Valve to Cyl. Front Port ~~31.50~~ 22" Lg.	
24	710-0356		Sq. Hd. Set Scr. 5/16-18 x .50" Lg.	
25	12561		Lift Shaft Ass'y.	
26	12553		Lift Arm Ass'y.	
27	714-0114		Sq. Key 1/4" x 2" Lg.	
28	736-0300		Fl-Wash. .381 I.D. x .87 O.D. x .059	
29	712-0375		Hex Cent. L-Nut 3/8-16 Thd.	
30	750-0157		Cylinder Spacer	
31	727-0159		Hyd. Cylinder	
32	727-0174		90° Adapter (Cyl. Ports)	
33	710-0496		Hex Scr. 1/2-13 x 4.50" Lg.*	
34	727-0183		Hose Valve to Cyl. (Rear Port 26" Lg.)	
35	736-0160		Fl-Washer .531 I.D. x .93 O.D.	
36	11323		Lift Arm	
37	738-0126		Shld. Scr. .498 Dia. x 1.450" Lg.	
38	727-0200		Lift Valve Ass'y.	
39	11331		Lift Handle Ass'y.	
40	727-0202		Axle to Pump Hose	
41	11341		Lift Valve Brkt. Ass'y.	
42	710-0289		Sems Scr. 1/4-20 x .50" Lg.	
43	710-0106		Hex Scr. 1/4-20 x 1.25 Lg.*	
44	736-0329		L-Wash. 1/4" Scr.*	
45	712-0287		Hex Nut 1/4-20 Thd.*	
46	715-0118		Spring Pin Spiral	
47	12620		Lift Lever Ass'y.	
48	736-0160		Fl-Wash. .531 I.D. x .93 O.D.	
49	736-0169		L-Wash. 3/8 Scr.*	
50	712-0130		Hex Ins. L-Nut 3/8-16 Thd.	
51	738-0297		Shld. Scr. .498 Dia. x .710"	
52	12559		Lift Arm	
53	748-0241		Shoulder Spacer	
54	12560		Lift Arm Link	
55	12557		Lift Link—L.H.	
56	738-0294		Cross Shaft	
57	736-0179		Fl-Wash. .531 I.D. x 1.125 O.D.	
58	712-0200		Elastic L-Nut 1/2-20 Thd.	
59	12558		Lift Link—R.H.	
60	710-0342		Hex Scr. 3/8-16 x 1.25 Lg.*	
61	712-0375		Hex Cent. L-Nut 3/8-16 Thd.	
62	736-0300		Fl-Wash. .381 I.D. x .87 O.D.	
63	736-0160		Fl-Wash. .531 I.D. x .93 O.D.	
64	712-0375		Hex Cent. L-Nut 3/8-16 Thd.	

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

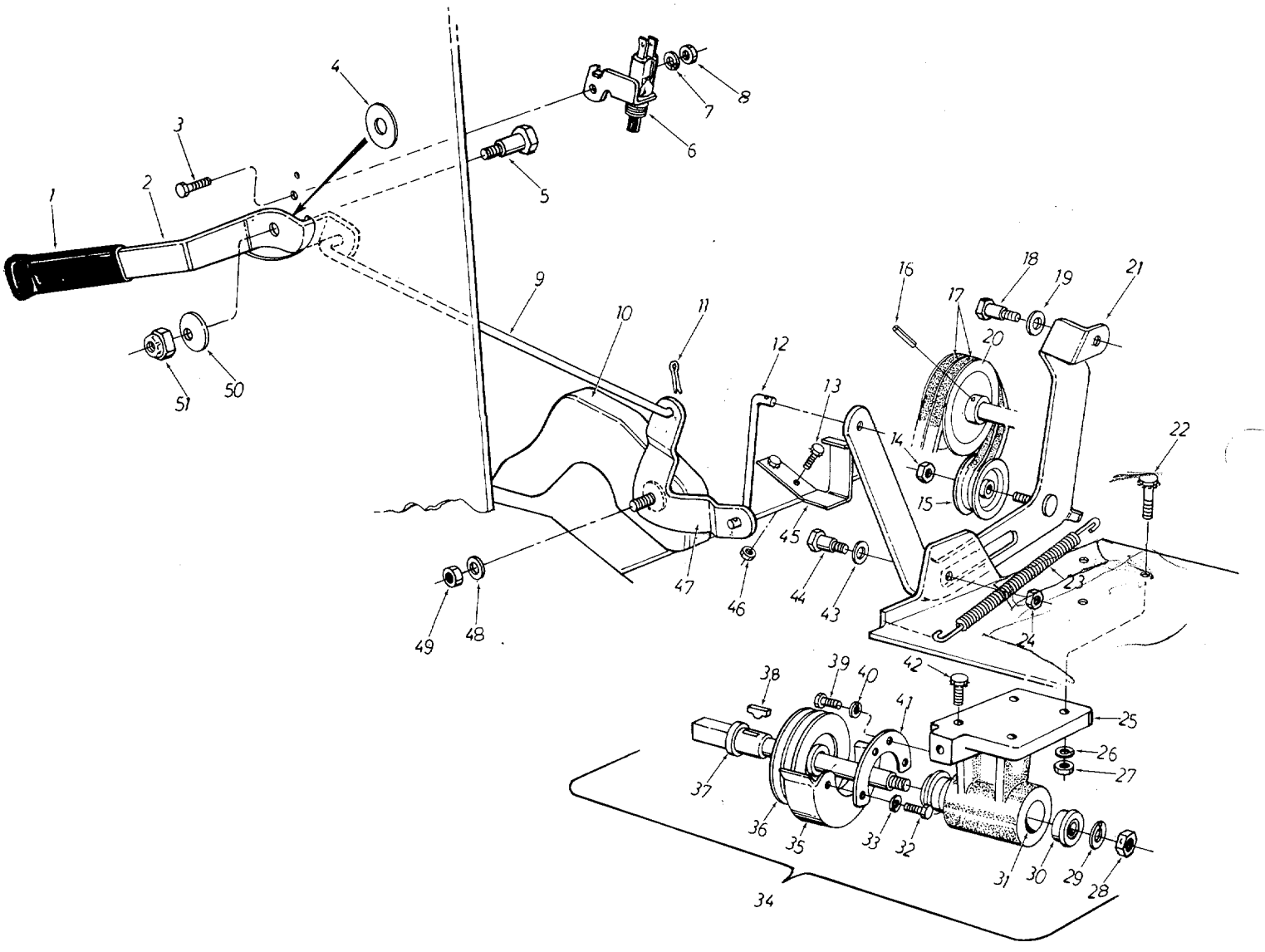
140-990A



THREE POINT HITCH
PARTS LIST FOR MODEL 140-990A TRACTOR

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	10729		Lift Pull Rod Ass'y.	
2	10991		Adjustment Clevis Ass'y.	
3	10985		Draft Bar Ass'y.—R.H.	
4	10996		Draw Bar Ass'y.	
5	711-0225		Clevis Pin	
6	10991		Adjustment Clevis Ass'y.	
7	10994		Clevis Scr. Ass'y.	
8	714-0117		Hairpin Cotter	
9	07387		Fl-Wash. .640 I.D.	
10	710-0216		Hex Bolt 3/8-16 x .75" Lg.*	
11	736-0169		L-Wash. 3/8" I.D.*	
12	10679		Hitch Plate Ass'y.	
13	10993		Upper Hitch Bracket	
14	711-0174		Clevis Pin	
15	07387		Fl-Wash. .640 I.D.	
16	711-0577		Clevis Pin 5/8 x 2.65" Lg.	
17	736-0179		Fl-Wash. 17/32" I.D.	
18	711-0308		Clevis Pin	
19	12561		Lift Arm Ass'y.	
20	712-0342		Hex Jam Nut 3/8-16 Thd.	
21	10986		Draft Bar Ass'y.—L.H.	
22	713-0148		Chain—20" Lg.	
23	711-0513		Chain Hook	

140-990A



POWER TAKE-OFF

PARTS LIST FOR MODEL 140-990A

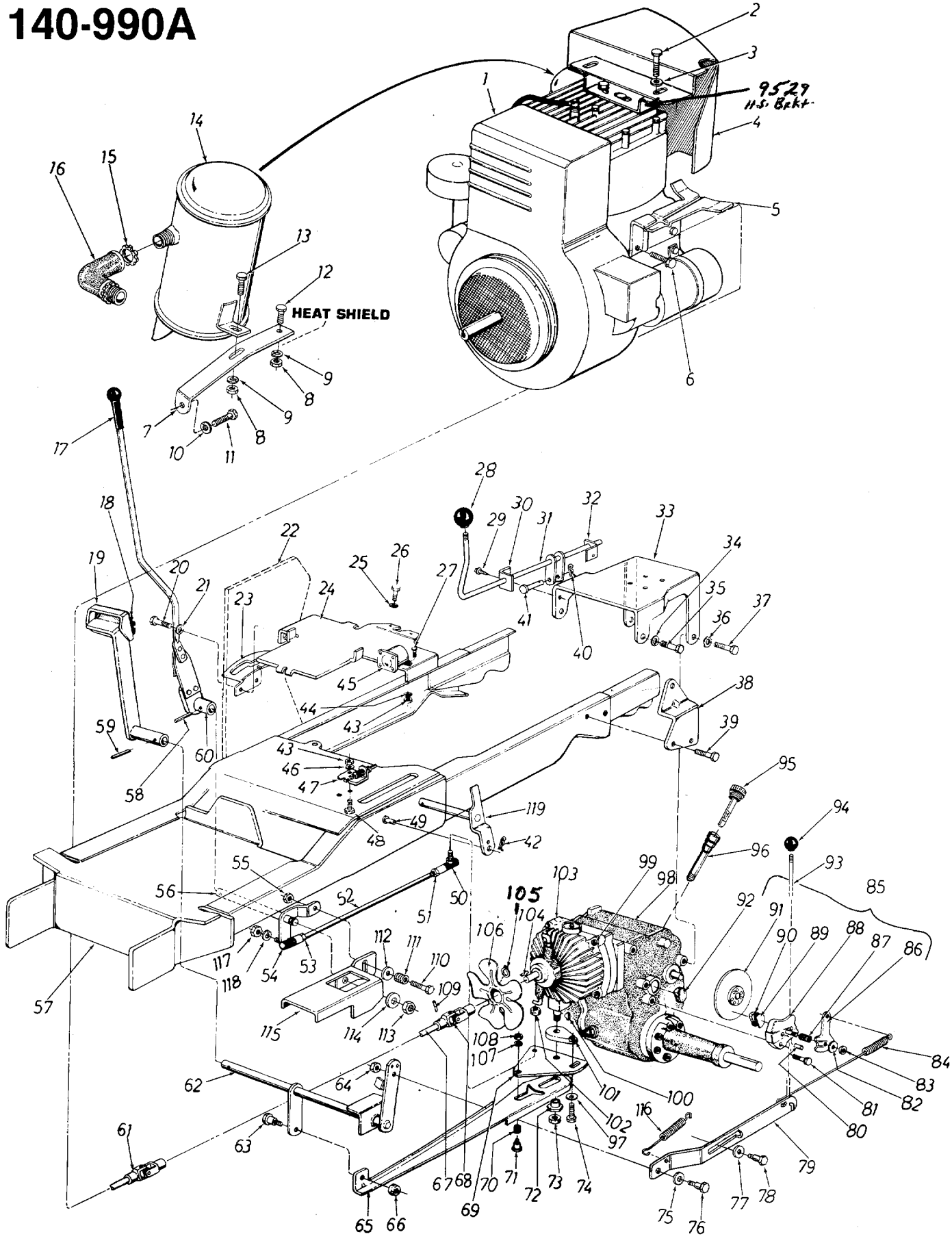
REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	720-0145		Grip		27	712-0798		Hex Nut 3/8-16 Thd.*	
2	12197		P.T.O. Handle		28	712-0221		Hex Ins. L-Nut 5/8-18 Thd.	
3	710-0136		Hex Scr. ¼-20 x 1.75" Lg.*		29	736-0158		L-Wash. 5/8" Scr.*	
4	736-0167		Fl-Washer .656 I.D. x 1.25" O.D.		30	741-0161		Ball Brg. .787 I.D. x 1.85" O.D.	
5	738-0322		Shoulder Bolt .625 Dia. x .217		31	750-0185		Bearing Spacer Tube .836 I.D. x 1.00" O.D. x 2.61" Lg.	
6	725-0268		Safety Switch						
7	736-0329		L-Wash. ¼" Scr.*						
8	712-0287		Hex Nut ¼-20 Thd.*		32	710-0289		Hex Scr. ¼-20 x .50 Lg.*	
9	747-0137		P.T.O. Rod		33	736-0329		L-Wash. ¼" Scr.*	
10	11322		Clutch Pivot Brkt.		34	717-0218		P.T.O. Ass'y.—Comp.	
11	714-0507		Cotter Pin 3/32" Dia. x .75 Lg.		35	11328		Belt Guard Ass'y.	
					36	756-0177		P.T.O. Pulley	
12	11570		P.T.O. Clutch Rod		37	738-0156		P.T.O. Shaft	
13	710-0211		Hex Sems Scr. ¼-20 x .75 Lg.		38	714-0113		#A Hi-Pro Key ¼ x .78 Dia.	
14	712-0116		L-Nut 3/8-24		39	710-0289		Hex Scr. ¼-20 x .50 Lg.*	
15	756-0183		Fl-Idler 3.62 O.D.		40	736-0329		L-Wash. ¼" Scr.*	
16	715-0114		Spring Pin Spiral ¼ Dia. x 1.50 Lg.		41	11327		Belt Guard Mtg. Brkt	
					42	710-0937		Hex Scr. 3/8-16 x 2.50" Lg.*	
17	754-0165		V-Belt ½" x 34" Lg.		43	736-0179		Fl-Wash. .531 I.D. x 1.25 O.D.	
18	738-0163		Shld. Scr. .625 Dia. x .261		44	738-0143		Shld. Scr. .498 Dia. x .340	
19	736-0116		Fl-Washer .635 I.D. x .93 O.D.		45	09476		Belt Trapout Brkt.	
20	756-0354		P.T.O. Engine Pulley	N	46	712-0107		Hex Cent. L-Nut ¼-20 Thd.	
21	11434		P.T.O. Clutch Idler Brkt.—Ass'y.		47	11344		Idler Crank	
					48	736-0300		Fl-Wash. .385 I.D. x .87 O.D.	
22	710-0344		Hex Scr. 3/8-16 x 1.50" Lg.*		49	712-0130		Hex Ins. L-Nut 3/8-16 Thd.	
23	732-0199		Extension Spring		50	736-0219		Belleville Wash. .400 I.D. x 1.13 O.D.	
24	712-0375		Hex Center L-Nut 3/8-16 Thd.						
25	717-0219		P.T.O. Housing		51	712-0130		Hex Ins. L-Nut 3/8-16 Thd	
26	736-0169		L-Wash. 3/8 Scr.*						

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

WHEEL CHART

REAR WHEEL		FRONT WHEEL	
PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
734-0934	Wheel Ass'y.—Comp. 27 x 9.50	734-0771	Wheel Ass'y.—Comp. 16 x 6.50
734-0935	Rim Ass'y. Only	734-0787	Rim Ass'y. Only
734-0397	Tire Only—Tubeless 27 x 9.50	734-0526	Tire Only—Tubeless 16 x 6.50
—	Bearings (Part of Transaxle)	734-0255	Air Valve
734-0255	Air Valve	731-0374	Wheel Bearing (2 per wheel)
13572	Hub Ass'y.	10457	Hub Ass'y.
		734-0253	Inner Tube (Service Only)

140-990A



PARTS LIST FOR MODEL 140-990A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
1	—		Engine	N
2	710-0258		Hex Scr. ¼-20 x .62" Lg.*	
3	736-0329		L-Wash. ¼" Scr.*	
4	12910		Heat Shield Ass'y.	
5	12918		Fuel Tank Brkt. Front	
6	710-0198		Hex Sems Scr. 5/16-18 x ¾" Lg.*	
7	12913		Heat Shield Angle Brace	
8	712-0287		Hex Nut ¼-20 Thd.*	
9	736-0329		L-Wash. ¼" I.D.*	
10	736-0171		L-Wash. .437 I.D.	
11	710-0374		Hex Scr. 7/16-14 x .750" Lg.	
12	710-0258		Hex Scr. ¼-20 x .62 Lg.*	
13	710-0258		Hex Scr. ¼-20 x .62 Lg.*	
14	751-0191		Muffler	
15	712-0250		Conduit Nut 1.00" I.D. 11.5 Thd.	
16	—		Part of Engine	
17	720-0143		Grip	
18	12378		Brake Pedal Pad	
19	10714		Brake Pedal	
20	710-0216		Hex Scr. 3/8-16 x .75 Lg.*	
21	736-0169		L-Wash. 3/8" Scr.*	
22	12703		Side Plate R.H.	
23	10908		Brkt. Control Index	
24	10681		Steering Tube Support Brkt. Ass'y.	
25	736-0169		L-Wash. 3/8" Scr.*	
26	710-0253		Hex Scr. 3/8-16 x 1.00 Lg.*	
27	710-0258		Hex Scr. ¼-20 x .62 Lg.*	
28	720-0165		Gear Shift Knob	
29	710-0653		Hex Wash. SF Tapp Scr. ¼-20 x .380 Lg.	
30	14149		Hi-Lo Speed Control Brkt.	N
31	14147		Hi-Lo Speed Control Ass'y.	N
32	14149		Hi-Lo Speed Control Brkt.	N
33	14209		Seat Brkt. Ass'y.	N
34	736-0921		L-Wash. ½" Scr.	
35	710-0493		Hex Scr. ½-13 x 1.00 Lg.	
36	736-0921		L-Wash. ½" Scr.	
37	710-0493		Hex Scr. ½-13 x 1.00" Lg.	
38	10678		Axle Support L.H.	
39	710-0493		Hex Scr. ½-13 x 1.00" Lg.	
40	714-0104		Hairpin Cotter ¼" Dia.	
41	711-0684		Clevis Pin ¼" Dia.	
42	714-0117		Hairpin Cotter	
43	712-0287		Hex Nut ¼-20 Thd.	
44	736-0329		L-Wash. ¼" Scr.*	
45	725-0530		Solenoid	
46	736-0329		L-Wash. ¼" Scr.*	
47	725-0268		Safety Switch	
48	710-0258		Hex Scr. ¼-20 Thd.*	
49	711-0308		Clevis Pin	
50	723-0156		Ball Joint Ass'y. 3/8-24 Thd.	
51	712-0711		Hex Jam Nut 3/8-24 Thd.	
52	747-0337		Control Rod L.H. and R.H. Thds.	N
53	712-0312		Hex Nut 3/8-24 L.H. Thd.	
54	723-0351		Ball Joint Ass'y. 3/8-24 L.H. Thd.	
55	712-0267		Hex Nut 5/16-18 Thd.*	
56	14216		Control Shaft Ass'y.	N
57	10893		Frame Ass'y	
58	715-0107		Spring Pin Spiral 5/16" Dia. x 1.38 Lg.	
59	715-0107		Spring Pin Spiral 5/16" Dia. x 1.38 Lg.	
60	14168		Control Arm Ass'y.	N
61	717-0170		Universal Joint	
62	14206		Brake Shaft Ass'y.	N
63	711-0118		Shoulder Scr.—Special	
64	712-0130		Hex Ins. L-Nut 3/8-16 Thd.	
65	14208		Control Slide	
66	712-0429		Elastic L-Nut 5/16-18 Thd.	
67	10736		Drive Shaft	
68	717-0171		Universal Drive Shaft	
69	14218		Control Adj. Plate	
70	741-0154		Needle Bearing	
71	710-0491		Skt. Hd. Shld. Scr. 5/16 x ½"	
72	738-0480		Slide Nut	
73	712-0249		Palnut ½-13 Thd.	
74	710-0253		Hex Scr. 3/8-16 x 1.00 Lg.*	
75	736-0192		Fl-Washer .531 I.D. x .930 O.D. x .090	
76	738-0147		Shoulder Scr. .496 Dia. x .165	
77	736-0192		Fl-Washer .531 I.D. x .930 O.D. x .090	
78	738-0143		Shoulder Scr. .496 Dia. x .336	
79	14167		Parking Brake Brkt.	N
80	HH-05-03034		Push Pin .309" Dia. x .857 Lg.	
81	710-0216		Hex Scr. 3/8-16 x .75 Lg.*	
82	HH-03-03032		Fl-Wash. .34[illegible] I.D. x 1.004 O.D.	
83	712-0134		Hex Top L-Nut 5/16-24 Thd.	
84	732-0389		Brake Spring	N
85	761-0139		Disc Brake Ass'y. Comp.	
86	HH-18-02006		Cam Lever 30°	
87	HH-06-03031		Spring Compression .350" Dia. 4 Coils	
88	HH-12-03041		Casting Cam	
89	HH-03-03097		Backup Washer	
90	HH-15-02533		Fric. Pad 1.600 Dia. x .370 Thk.	
91	761-0142		Brake Disc Ass'y.	
92	HH-15-02533		Fric. Pad 1.600 Dia. x .370 Thk.	
93	747-0336		Parking Brake Link	N
94	720-0166		Ball Knob	
95	751-0240		Dipstick	
96	751-0239		Dipstick Tube Ass'y.	
97	736-0148		Ext. L-Washer 3/8" Scr.*	
98	—		Transaxle—Comp.	
99	710-0492		Sock. Hd. Scr. 3/8-16 x 2.75" Lg.	
100	714-0388		#61 Hi-Pro Key 3/16 x 5/8" Dia.	
101	748-0284		Pintle Control Lever	
102	712-0116		Elastic L-Nut 3/8-24 Thd.	
103	717-0344		Hydrostatic Pump Comp.	
104	714-0388		#61 Hi-Pro Key 3/16 x 5/8 Dia.	
105	716-0123		Snap Ring	
106	731-0317		Fan Ass'y.	

PARTS LIST FOR MODEL 140-990A (CONTINUED)

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
107	736-0329		L-Wash. ¼" Scr.*	
108	712-0287		Hex Nut ¼-20 Thd.*	
109	715-0114		Spring Pin Spiral ¼" Dia. x 1.50 Lg.	
110	710-0442		Hex Scr. 5/16-18 x 1.50" Lg.*	
111	732-0108		Compression Spring	
112	07387		Fl-Washer	
113	712-0221		Elastic L-Nut 5/8-18 Thd.	
114	736-0156		Fl-Washer .635 x 1.120 O.D. x .090	
115	10699		Control Brkt. Ass'y.	
116	732-0121		Brake Return Spring	
117	712-0116		Elastic L-Nut 3/8-24 Thd.	
118	736-0169		L-Wash. 3/8 Scr.*	
119	12561		Lift Shaft Ass'y.	

PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts number, description of parts and the quantity of each part required.

ALABAMA	**BIRMINGHAM**	
Auto Electric & Carburetor Co.	2625 4th Ave. S.	35233
ARKANSAS	**FORT SMITH**	
Mity Mite Motors, Inc.	4515 South 16th Street	72901
	NORTH LITTLE ROCK	
Sutton's Lawn Mower Shop	Rt. 4 Box 368	72117
CALIFORNIA	**PORTERVILLE**	
Billious	75 North D Street	93257
	SAN BERNARDINO	
Lawn Mower Supply Co	25608 E. Baseline	92410
	SAN FRANCISCO	
J.W. Jewett Co.	981 Folsom St.	94107
COLORADO	**DENVER**	
South Denver Lawn Equip.	527 West Evans	80223
FLORIDA	**JACKSONVILLE**	
Radco Distributors	2403 Market St.	32206
	OPA LOCKA	
Small Eng. Dist.	2351 N.W. 147th St.	33054
GEORGIA	**EAST POINT**	
East Point Cycle & Key	2834 Church St.	30344
ILLINOIS	**LYONS**	
Keen Edge Co.	8615 Ogden Ave.	60534
INDIANA	**ELKHART**	
Parts & Sales Inc.	2101 Industrial Pkwy.	46514
IOWA	**DUBUQUE**	
Power Lawn & Garden Equip.	2551 J.F. Kennedy	52001
LOUISIANA	**NEW ORLEANS**	
Suhren Engine Co.	8330 Earhart Blvd.	70118
MARYLAND	**TAKOMA PARK**	
Center Supply Co.	6867 New Hampshire Ave.	20012
MASSACHUSETTS	**SPRINGFIELD**	
Morton B. Collins Co.	300 Birnie Ave.	01107
MICHIGAN	**LANSING**	
Lorenz Service Co.	2500 S. Pennsylvania	48910
	MOUNT CLEMENS	
Power Equipment Dist.	36463 South Gratiot	48043
MINNESOTA	**HOPKINS**	
Hance Distributing Inc.	420 Excelsior Ave. W.	55343
	ST. PAUL	
Power Tools Inc.	3771 Sibley Memorial Hwy.	55122
MISSISSIPPI	**BILOXI**	
Biloxi Sales & Service, Inc.	506 Caillavet St.	39533
MISSOURI	**KANSAS CITY**	
Automotive Equip. Service	3117 Holmes St.	64109
	ST. JOSEPH	
Ross-Frazier Supply Co.	8th and Monteray	64503
	ST. LOUIS	
Henzler, Inc.	2015 Lemay Ferry Rd.	63125
NEW JERSEY	**BELLMAWR**	
Lawnmower Parts Inc.	717 Creek Rd.	08030
	RUTHERFORD	
Feld Distributor	28 Glen Rd.	07070
NEW YORK	**CARTHAGE**	
Gamble Dist., Inc.	West End Ave.	13619

BRIGGS AND STRATTON, TECUMSEH AND PEERLESS PARTS SERVICE

Briggs & Stratton, Tecumseh and Peerless parts and service shc handled by your nearest authorized engine service firm. Chec yellow pages of your telephone directory under the lis **Engines—Gasoline**, Briggs & Stratton or Tecumseh Lauson.

	SYRACUSE	
GTP Leisure Products Inc.	420 Marcellus St.	13204
NORTH CAROLINA	**GOLDSBORO**	
Smith Hardware Co.	515 N. George St.	27530
	GREENSBORO	
Dixie Sales Company	327 Battleground Ave.	27402
OHIO	**CARROLL**	
Stebe's Mid-State Mower Supply	Box 366-71 High St.	43112
	CLEVELAND	
Bleckrie, Inc.	7900 Lorain Ave.	44102
	WADSWORTH	
National Central	687 Seville Rd.	44281
	YOUNGSTOWN	
Burton Supply Co.	1301 Logan Ave. Box 929	44501
OKLAHOMA	**ADA**	
Ada Auto Supply	301 E. 12th St.	74820
	MUSKOGEE	
Victory Motors, Inc.	605 S. Cherokee	74401
	OKLAHOMA CITY	
Forest Sales Inc.	1039 NW 63rd St.	73116
OREGON	**PORTLAND**	
Kenton Supply Co.	8216 N. Denver Ave.	97217
PENNSYLVANIA	**CHESTER**	
Stull Equipment Corp	742 W. Front St.	19013
	HARRISBURG	
EECO Inc.	4021 N. 6th St.	17110
	PHILADELPHIA	
Thompson Rubber Co.	5222-24 N. Fifth St.	19120
	PITTSBURGH	
Bluemont Co.	11125 Frankstown Rd.	15235
TENNESSEE	**KNOXVILLE**	
Master Repair Service	2000 Western Ave.	37
	MEMPHIS	
Memphis Cycle & Supply Co.	421 Monroe Ave.	38103
American Sales & Service, Inc.	1922 Lynnbrook	38116
TEXAS	**DALLAS**	
Marr Brothers, Inc.	423 E. Jefferson	75203
	FORT WORTH	
Woodson Sales Corp.	1702 N. Sylvania	76111
	HOUSTON	
Bullard Supply Co.	2409 Commerce St.	77003
	SAN ANTONIO	
Catto & Putty, Inc.	414 Live Oak	78298
UTAH	**SALT LAKE CITY**	
A-1 Engine & Mower Co.	437 E. 9th St.	84111
VERMONT	**BURLINGTON**	
Vermont Hdwe. Co. Inc.	180 Flynn Ave.	05401
VIRGINIA	**RICHMOND**	
RBI Corp.	963 Myers St.	23260
WASHINGTON	**SEATTLE**	
Bailey's Inc.	1414 14th Ave.	98102
WEST VIRGINIA	**CHARLESTON**	
Young's, Inc.	233 Virginia St., E.	25301
WISCONSIN	**APPLETON**	
Automotive Supply Co.	123 S. Linwood Ave.	54911

WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsiblity.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

1. **Replacement of Missing Parts** on new equipment.
2. **Replacement of Defective Parts** within the warranty period.
3. **Repair of Defects** within the warranty period.

All claims MUST be substantiated with the following information:

1. **Model Number** of unit involved.
2. **Date** unit was purchased or first put into service.
3. **Date of failure.**
4. **Nature of failure.**